SEARS

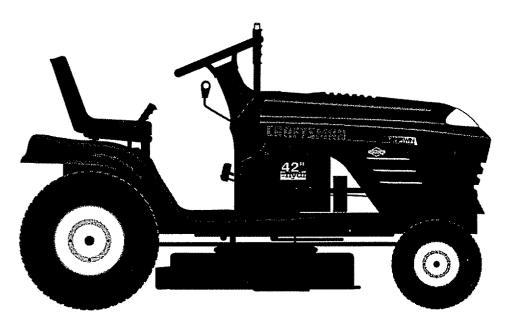
M - 82 - 02 - 337

MODEL NUMBER 917.259172 OWNER'S MANUAL

 $EZ^3$ 

R

- Assembly
- Operation
- Customer Responsibilities
- Service and Adjustments
- Repair Parts



This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

For answers to your questions about this product, Call:

**1-800-659-5917** Sears Craftsman Help Line 5 am - 5 pm, Mon - Sat

CAUTION: Read and follow all safety rules and instructions before operating this equipment.



#### **SAFETY RULES**

#### Safe Operation Practices for Ride-On Mowers



IMPORTANT: THIS CUTTING MACHINE IS CAPABLE OF AMPUTATING HANDS AND FEET AND THROWING OBJECTS. FAILURE TO OBSERVE THE FOLLOWING SAFETY INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

#### I. GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stopmachine if anyone enters the area.
- · Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.

#### II. SLOPE OPERATION

Slopes are a major factor related to loss-of-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

#### DO:

- · Mow up and down slopes, not across.
- · Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments.
   These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

#### DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

#### III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- · Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

#### IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.



The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

**CONGRATULATIONS** on your purchase of a Sears Tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Authorized Service Center/Department Department. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES".

MODEL NUMBER SERIAL NUMBER	917.259172
DATEOFPUR	CHASE
ON A PLATE YOU SHOULD DATE OF PUR	ND SERIAL NUMBERS WILL BE FOUND UNDER THE SEAT. RECORD BOTH SERIAL NUMBER AND RCHASE AND KEEP IN A SAFE PLACE REFERENCE.

#### MAINTENANCE AGREEMENT

A Sears Maintenance Agreement is available on this product. Contact your nearest Sears store for details.

#### **CUSTOMER RESPONSIBILITIES**

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this owner's manual.

**WARNING:** This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-cov-

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	19.5
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/SG/SH):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	3.0 PINTS
SPARK PLUG: (GAP: .030")	CHAMPION RJ19LM
VALVE CLEARANCE:	INTAKE: .004"006" EXHAUST: .007"009"
GROUND SPEED (MPH):	FORWARD: 0 - 5.5 REVERSE: 0 - 2.4
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	3 AMPS BATTERY 5 AMPS HEADLIGHTS
BATTERY:	AMP/HR: 30 MIN. CCA: 240 CASE SIZE: U1R
BLADE BOLT TORQUE:	27–35 FT. LBS.

ered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center/Department (See REPAIR PARTS section of this manual).

#### LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT

For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship.

This Warranty does not cover:

- Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts, etc.
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, negligence, improper storage or accident or the failure to maintain the equipment according to the instructions contained in the owner's manual.
- Riding equipment used for commercial or rental purposes.

#### **LIMITED 90 DAY WARRANTY ON BATTERY**

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge.

IN-HOME WARRANTY SERVICE ON YOUR CRAFTSMAN RIDING EQUIPMENT IS AVAILABLE AT NO-CHARGE FOR 30 DAYS FROM THE DATE OF PURCHASE. PLEASE CONTACT YOUR NEAREST SERVICE CENTER. AFTER 30 DAYS FROM THE DATE OF PURCHASE, WARRANTY SERVICE IS AVAILABLE BY TAKING YOUR CRAFTSMAN RIDING EQUIPMENT TO YOUR NEAREST SEARS SERVICE CENTER. (IN-HOME WARRANTY SERVICE WILL STILL BE AVAILABLE AFTER 30 DAYS FROM THE DATE OF PURCHASE BUT A STANDARD TRIP CHARGE WILL APPLY.) THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS IN THE UNITED STATES.

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

SEARS, ROEBUCK AND CO., D/817 WA, HOFFMAN ESTATES, IL 60179

### **TABLE OF CONTENTS**

SAFETY RULES		9	OPERATION		11-1/
PRODUCT SPECIFICATIONS	***********		MAINTENANCE S	CHEDULE	16
CUSTOMER RESPONSIBILITI	ES		SERVICE AND AD	JUSTMENTS	20-2€
WARRANTY		3		***************************************	
TABLE OF CONTENTS	*********	****** 4	TROUBLESHOOT	'ING	28-29
INDEX		******* <b>*</b>	<b>REPAIR PARTS -</b>	TRACTOR	31-48
TRACTOR ACCESSORIES		***************************************	<b>REPAIR PARTS -</b>	ENGINE	49-55
ASSEMBLY	*********	7-9	PARTS ORDERIN	G/SERVICE BA	CK PAGE
INDEX					
Α		y		Onemakinu	4444
Accessories.	E	E		Operation	
Adjustments:		Electrical:		Operating Mower	
Brake	22	Interlocks and Rela	•	Options: Accessories	5
Carburetor		Schematic		Spark Arrester	2 At
Mower:		Wiring Diagram	0-0000k semiseconomina <b>31</b>	Opair Airestei	
Front-To-Back	21	Engine: Air Filter	40	Parking Brake	11 12
Side-To-Side		Air Screen			
Throttle Control Cable				Parts Bag	
Air Filter, Engine		Cooling Fins, Engir		Parts, Replacement/Repair	
Air Screen, Engine		Oil Change		Product Specifications	<b>C</b> 492242244
Assembly		Oil Level		R	
B		Oil Type			_, _,
_		Preparation		Repair Parts	31-48
Battery:	17	Repair Parts		S	
Charging		Starting.		Safety Rules	
Cleaning		Storage		Seat	
Starting with Weak Battery		F		Service and Adjustments	
StorageTerminals		Filters:	46	Brake	
Belts:	17	Air BREEFFER CONTROL BENEFIT B		Carburetor	
Motion Drive		Fuel		Fuse	
	99	Fuel:	40	Hood Removal/Installatio	n 24
Removal/Replacement	<b>&amp;</b> &	Type		Motion Drive Belt	
Mower Blade Drive	22	Storage		Removal/Replacemen	t22
Removal/Replacement Blade:	**** 6.6.	Fuse		Mower Blade Drive Belt	
Sharpening	17	G		Removal/Replacemen	t22
Replacement		Gauge Wheels		Mower Adjustment:	
Brake Adjustment		Н		Front-to-Back	
Diake Adjustition	11 to 5 to 6	Hood Removal/Installati	ion24	Side-to-Side	, 21
Condessates Authorities and	00	L_		Mower Installation	20
Carburetor Adjustment		Leveling Mower Deck	21	Mower Removal	
Controls, Tractor		Lubrication Chart		Tire Care	
Customer Responsibilities3,	17-19	M		Slope Guide Sheet	
Engine: Air Filter	40	Maintenance Schedule	16	Spark Plugs	
Air Screen, Engine		Mower:	**************************************	Specifications	
_		Adjustment, Front-t	n-Back 21	Starting the Engine	
BatteryCooling Fins, Engine		Adjustment, Side-to		Steering Wheel	
		Blade Sharpening .		Stopping the Tractor	
Engine Oil		Blade Replacemen		Storage	
Spark Plugs		Cutting Height		Т	
Tractor:	13	Installation		Throttle Control Cable Adjustr	
Blades	17	Operation		Tires	
Lubrication Chart		Removal		Trouble Shooting Chart	28-29
Maintenance Schedule		Mowing Tips		Transaxle Repair Parts	47-48
Tire Care8,		Muffler		W	
Cutting Height, Mower		Spark Arrester		Warranty	
Cattliff Holdith Michael Areacondstrater	8994 I <b>G</b>	Mulcher Plate		Wiring Diagram	
		0		Wiring Schematic	
		Oil:			
		Cold Weather Cond	ditions 13,18		
		Engine			
		<u>.</u> . <del>-</del>			

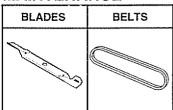
### ACCESSORIES AND ATTACHMENTS

These accessories and attachments were available through most Sears retail outlets and service centers when the tractor was purchased. Most Sears stores can order these items for you when you provide the model number of your tractor.

#### **ENGINE**

### 

#### MAINTENANCE



#### PERFORMANCE

Sears offers a wide variety of attachments that fit your tractor. Many of these are listed below with brief explanations of how they can help you. This list was current at the time of publication; however, it may change in future years - more attachments may be added, changes may be made in these attachments, or some may no longer be available or fit your model. Contact your nearest Sears store for the accessories and attachments that are available for your tractor.

Most of these attachments do not require additional hitches or conversion kits (those that do are indicated) and are designed for easy attaching and detaching

**AERATOR** promotes deep root growth for a healthy lawn. Tapered 2.5-inch steel spikes mounted on 10-inch diameter discs puncture holes in soil at close intervals to let moisture soak in. Steel weight tray for increased penetration.

**BAGGER** lets you collect grass clippings and leaves for a healthier, neater looking lawn. Two Permanex containers hold 30-gallon plastic bags.

BUMPER protects front end of tractor from damage.

CARTS make hauling easy. Variety of sizes available, plus accessories such as side panel kits, tool caddy, cart cover, protective mat and dolly.

CORING AERATOR takes small plugs out of soil to allow moisture and nutrients to reach grass roots. 36-inch swath. 24 hardened steel coring tips. 150 lb. capacity weight tray.

EASY OIL DRAIN VALVE makes oil changes easier, faster.

FRONT NOSE ROLLER canters in front of mower deck to reduce chances of "scalping" on uneven terrain.

**GANG HITCH** lets you tow 2 or 3 pull-behind attachments at once, such as sweepers, dethatchers, aerators (not for use with rollers, carts or other heavy attachments).

**GAUGE WHEELS** on both sides of the mower deck reduce chances of "scalping" on uneven terrain. For mower decks not so equipped.

MULCH RAKE/DETHATCHER loosens soil and flips thatch and matted leaves to lawn surface for easy pickup. Twenty spring tine teeth. Useful to prepare bare areas for seeding. Available for front or rear mounting. HIGH PERFORMANCE REEL-ACTION SPRING TINE DETHATCHER covers 36-inch wide path and tosses thatch into large hopper. Mounts behind tractor.

MULCHING CLOSE-OUT PLATE KIT, once installed, lets you mulch, discharge or bag clippings (bagger optional) without changing blades. For models not equipped as 3-in-1 Convertible mowers. See "MOWER" in the Repair Parts section of this manual.

**RAMP TOPS AND FEET** let you load and unload tractor from a pickup truck. Use with 2 x 8 or 2 x 10 lumber.

**ROLLER** for smoother lawn surface. 36-inch wide, 18-inch diameter water-tight drum holds up to 390 lbs. of weight. Rounded edges prevent harm to turf. Adjustable scraper automatically cleans drum.

SNOW BLADE for snow removal only. 14-inch high, 48-inch wide blade clears 42-inch path when angled left or right. Raises, lowers with side lever. Adjustable skids; replaceable, reversible scraper bar. (Use with tire chains and wheel weights and/or rear drawbar weight.)

**SNOWTHROWER** has 40-inch swath. Drum-type auger handles powdery and wet/heavy snow. Mounts easily with simple pin arrangement. Discharge chute adjusts from tractor seat. 6-inch diameter spout discharges snow 10 to 50 feet. Lift controlled at tractor seat. (Use with chains and wheel weights and/or rear drawbar weight.)

**SPRAYERS** use 12-volt DC electric motor that connects to the tractor battery or other 12-volt source. Includes booms for automatic spraying and hand held wand for spot spraying. Wand has adjustable spray pattern. For applying herbicides, insecticides, fungicides and liquid fertilizers.

SPREADER/SEEDERS make seeding, fertilizing, and weed killing easy. Broadcast spreaders are also useful for granular delicers and sand.

SWEEPERS let you collect grass clippings and leaves.

TILLER has 5 hp engine and 36-inch swath to prepare seed beds, cultivate and compost garden residue. Tiller has its own built-in lift and depth control system and does NOT require a sleeve hitch. Fits any lawn, yard or garden tractor. Simply hook up to the tractor drawbar and go! Optional accessories convert unit for dethatching, aerating, hilling...without tools.

TIRE CHAINS are heavy duty; closely spaced extra-large cross links give smooth ride, outstanding traction.

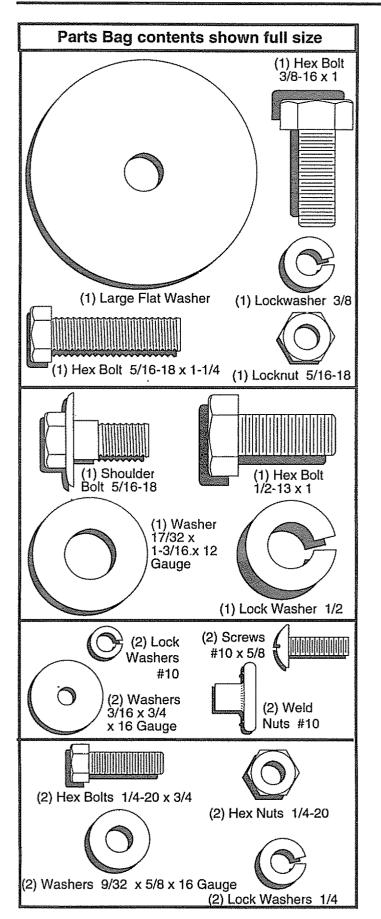
TRACTOR CAB has heavy duty vinyl fabric over tubular steel frame, ABS plastic top; clear plastic windshield offers 360 degree visibility. Hinged metal doors with catch. Keeps operator warm and dry. Remove vinyl sides and windshields for use as sun protector in summer. Optional accessories include: tinted/tempered solid safety glass windshield with hand operated wiper; 12-volt amber caution light for mounting on cab top.

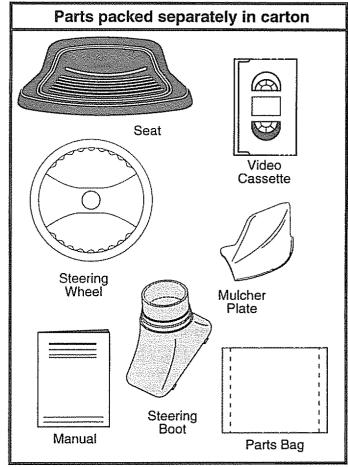
VACS for powerful collection of heavy grass clippings and leaves. Optional wand attachment to pick up debris in hard-to-reach places. VAC/CHIPPER includes a chipper-shredder.

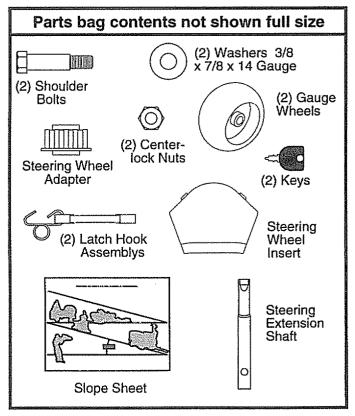
**WEIGHT BRACKET** for drawbar for snow removal applications. Uses (1) 55 lb. weight.

WHEEL WEIGHTS for rear wheels provide needed traction for snow removal or dozing heavy materials.

## CONTENTS OF HARDWARE PACK







### ASSEMBLY

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness.

#### **TOOLS REQUIRED FOR ASSEMBLY**

A socket wrench set will make assembly easier. Standard wrench sizes are listed.

(1) 9/16" wrench

(1) 3/4" Socket w/drive rachet

(2) 7/16" wrenches

Phillips Screwdriver

(2) 1/2" wrenches

Tire pressure gauge

Utility knife

When right or left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

#### TO REMOVE TRACTOR FROM CARTON

#### **UNPACK CARTON**

- Remove all accessible loose parts and parts cartons from carton (See page 6).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove

# BEFORE ROLLING TRACTOR OFF SKID ATTACH STEERING WHEEL (See Fig. 1)

#### ASSEMBLE EXTENSION SHAFT AND BOOT

 Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.

### **IMPORTANT:** TIGHTEN BOLT AND NUT SECURELY TO 18-22 FT. LBS TORQUE.

 Place tabs of steering boot over tab slots in dash and push down to secure.

#### **INSTALL STEERING WHEEL**

- Position front wheels of the tractor so they are pointing straight forward.
- Slide steering wheel adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 3/8 lock washer, 3/8 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill.

IMPORTANT: CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

# TO ROLL TRACTOR OFF SKID (See Operation section for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.

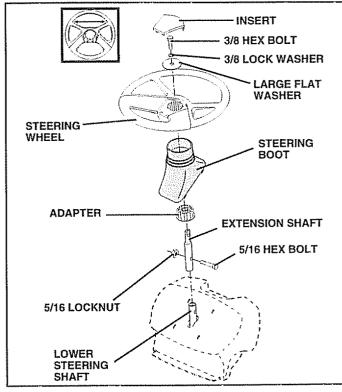


FIG. 1

- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

#### **HOW TO SET UP YOUR TRACTOR**

#### **CONNECT BATTERY (See Fig. 2)**



CAUTION: Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands, rings, etc.

Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Open terminal access doors, remove terminal protective caps and discard.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.

### ASSEMBLY

- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Close terminal access doors.

Use terminal access doors for:

- Inspection for secure connections (to tighten hard-
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.

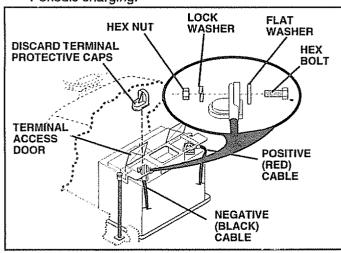


FIG. 2

#### INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment bolt.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt. Tighten shoulder bolt securely.
- Assemble adjustment bolt, lock washer and flat washer loosely. Do not tighten.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment bolt securely.

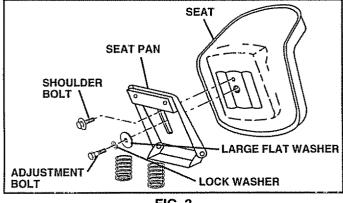


FIG. 3

#### CHECK TIRE PRESSURE

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### CHECK DECK LEVELNESS

For best cutting results, mower housing should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

#### CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

#### CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

#### ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 4)

The gauge wheels are designed to keep the mower deck in proper position when operating mower. Be sure they are properly adjusted to ensure optimum mower performance.

- Assemble gauge wheels with tractor on a flat level surface.
- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

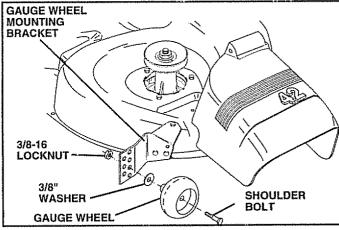


FIG. 4

### ASSEMBLY

## INSTALL MULCHER PLATE (See Figs. 5 & 6)

 Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

**NOTE:** Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

- Tighten hardware securely.
- · Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation.

## TO CONVERT TO BAGGING OR DISCHARGING

Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

**NOTE:** It is not necessary to change blades. The mulcher blades are designed for discharging and bagging also.

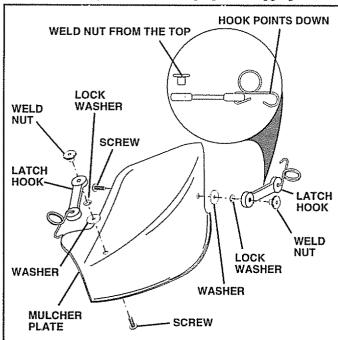


FIG. 5

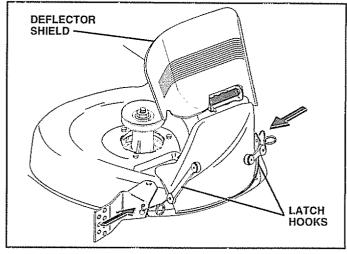


FIG. 6

#### / CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

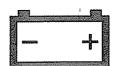
PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ Be sure mower deck is properly leveled side-to-side/ front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- ✓ Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- Check wiring. See that all connections are still secure and wires are properly clamped.
- ✓ Before driving tractor, be sure freewheel control is in drive position.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- ✓ Engine oil is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls their location and function. Operate them before you start the engine.
- Be sure brake system is in safe operating condition.
- It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.



**BATTERY** 



CAUTION OR WARNING



REVERSE



**FORWARD** 



FAST



SLOW



**ENGINE ON** 



**ENGINE OFF** 



OIL PRESSURE



**CLUTCH** 



LIGHTS ON



OVER TEMP LIGHT



**FUEL** 



CHOKE



MOWER HEIGHT



DIFFERENTIAL LOCK



PARKING BRAKE LOCKED



UNLOCKED



MOWER LIFT



**REVERSE** 



**NEUTRAL** 



HIGH



LOW



PARKING BRAKE



ATTACHMENT CLUTCH ENGAGED



ATTACHMENT CLUTCH DISENGAGED

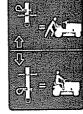


**IGNITION** 



DANGER, KEEP HANDS AND FEET AWAY





HYDROSTATIC FREE WHEEL (Hydro Models only)

#### **KNOW YOUR TRACTOR**

#### READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.

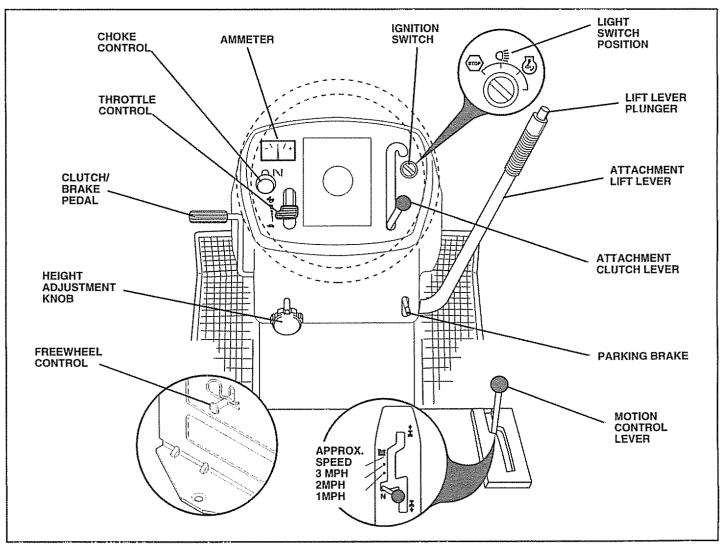


FIG. 7

Our tractors conform to the safety standards of the American National Standards Institute.

ATTACHMENT CLUTCH LEVER: Used to engage the mower blades, or other attachments mounted to your tractor.

LIGHT SWITCH: Turns the headlights on and off.

THROTTLE CONTROL: Used to control engine speed.

**CLUTCH/BRAKE PEDAL:** Used for declutching and braking the tractor and starting the engine.

**PARKING BRAKE**: Locks clutch/brake pedal into the brake position.

**FREEWHEEL CONTROL**: Disengages transmission for pushing or slowly towing the tractor with the engine off.

CHOKE CONTROL: Used when starting a cold engine.

**MOTION CONTROL LEVER:** Selects the speed and direction of the tractor.

**ATTACHMENT LIFT LEVER**: Used to raise and lower the mower deck or other attachments mounted to your tractor.

**LIFT LEVER PLUNGER:** Used to release attachment lift lever when changing its position.

**IGNITION SWITCH:** Used for starting and stopping the engine.

**HEIGHT ADJUSTMENT KNOB:** Used to adjust the mower cutting height.

**AMMETER:** Indicates battery charging (+) or discharging (-).



The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over the spectacles or standard safety glasses.

#### HOW TO USE YOUR TRACTOR

#### TO SET PARKING BRAKE (See Fig. 8)

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

- Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "ENGAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold tractor secure.

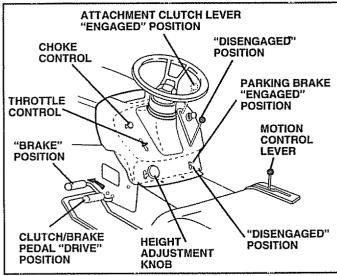


FIG. 8

#### STOPPING (See Fig. 8)

**MOWER BLADES -**

Move attachment clutch lever to "DISENGAGED" position.

#### GROUND DRIVE -

- Depress clutch/brake pedal into full "BRAKE" position.
- Move motion control lever to neutral (N) position.

IMPORTANT: THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

#### ENGINE -

Move throttle control to slow position.

NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to "backfire".

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

NOTE: Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.



CAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

#### TO USE THROTTLE CONTROL (See Fig. 8)

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

#### TO USE CHOKE CONTROL (See Fig. 8)

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

To engage choke control, pull knob out. Slowly push knob in to disengage.

## TO MOVE FORWARD AND BACKWARD (See

The direction and speed of movement is controlled by the motion control lever.

- Start tractor with motion control lever in neutral (N) position.
- Release parking brake and clutch/brake pedal.
- Slowly move motion control lever to desired position.

#### TO ADJUST MOWER CUTTING HEIGHT (See Fig. 8)

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise ( ) to raise cutting height.

  Turn knob counterclockwise ( ) to lower cutting

The cutting height range is approximately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

#### TO OPERATE MOWER (See Fig. 9)

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- Select desired height of cut.
- Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch
- TO STOP MOWER BLADES disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.

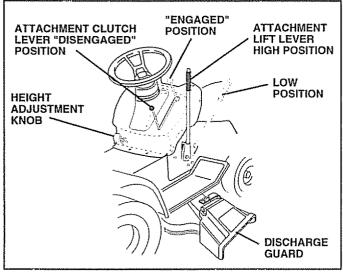


FIG. 9

#### TO OPERATE ON HILLS



CAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move motion control lever to neutral (N) position.

**IMPORTANT:** THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motion control lever to slowest setting.
- Make all turns slowly.

#### TO TRANSPORT (See Fig. 10)

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control knob out and hold in position by inserting retainer spring into forward hole of control rod.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

**NOTE:** To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).

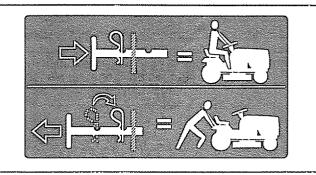


FIG. 10

## BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL (See Fig. 15)

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and screw cap tight, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

#### **ADD GASOLINE**

 Fill fuel tank. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life). Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

WARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

#### TO START ENGINE (See Fig. 7)

When starting the engine for the first time or if the engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress clutch/ brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position
- Move throttle control to fast position
- Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

**Note:** Before starting, read the warm and cold starting procedures below.

Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, push choke control in, wait a few minutes and try again. If engine still does not start, pull the choke control out and retry.

#### WARM WEATHER STARTING (50° F and above)

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

#### COLD WEATHER STARTING (50° F and below)

• When engine starts, slowly push choke control in until the engine begins to run smoothly. Continue to push the choke control in small steps allowing the engine to accept small changes in speed and load, until the choke control is fully in. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

#### HYDROSTATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - Place the motion control lever in neutral. Release the parking brake and let the clutch/ brake slowly return to operating position.
  - Allow one minute for transmission to warm up. This can be done during the engine warm up period.
- The attachments can be used during the engine warm-up period after the transmission has been warmed up and may require the choke control be pulled out slightly.

**NOTE:** If at a high altitude (above 3000 feet) or in cold temperatures (below 32 F) the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

#### **PURGE TRANSMISSION**



CAUTION: Never engage or disengage freewheel lever while the engine is running.

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

IMPORTANT: SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

 Place tractor safely on level surface with engine off and parking brake set.

 Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).

 Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.

 Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

**NOTE:** During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

 Move motion control lever to neutral (N) position. Shutoff engine and set parking brake.

 Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).

 Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.

- Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.
- Your tractor is now purged and now ready for normal operation.

#### **MOWING TIPS**

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 11).
- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

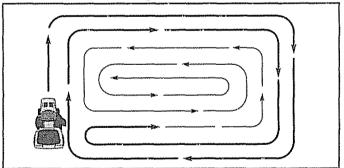


FIG. 11

#### **MULCHING MOWING TIPS**

**IMPORTANT:** FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action. The best time to mow your lawn is the early afternoon. At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 12). For extremely heavy mulching, reduce your width of cut and mow slowly.
- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

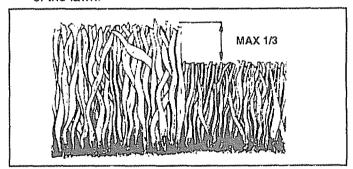


FIG. 12

FII	AINTENANCE SCHEDULE LL IN DATES SYOU COMPLETE EGULAR SERVICE		EFORE	EACH O	HOUPS HOUPS	S HOUR S HOUR VERY S	S HOUP O HOUP JERY 10	S HOUP O HOUP VERY E	S ON EASON EFORE	SER	(SE)	E DAT	ΓES
	Check Brake Operation	6/	1										
	Check Tire Pressure	4	9						ĺ				
I	Check for Loose Fasteners	4				1		0					
R A	Sharpen/Replace Mower Blades			W/4									
Ĉ	Lubrication Chart			0/				1					
Ť	Check Battery Level/Recharge			<b>V</b> 6									
0	Clean Battery and Terminals			0/				4					
R	Check Transaxle Cooling			0/									
	Adjust Blade Belt(s) Tension					<b>6</b> /5							
	Adjust Motion Drive Belt(s) Tension					1/5							
	Check Engine Oil Level	4	4										
	Change Engine Oil			1,2,3				V					
lε	Clean Air Filter			<b>6</b> /2									
N	Clean Air Screen			<b>1</b> /2									
G	Inspect Muffler/Spark Arrester				6/								
	Replace Oil Filter (If equipped)					1,2							
NE	Clean Engine Cooling Fins					<b>1</b> 2							
	Replace Spark Plug					8/	9/						
	Replace Air Filter Paper Cartridge					<b>1</b> /2							
	Replace Fuel Filter						<b>V</b>						

- 1 Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 If equipped with oil filter, change oil every 50 hours
- 4 Replace blades more often when moving in sandy soll.

- 5 If equipped with adjustable system.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft -lbs. maximum. Do not overtighten.

#### **GENERAL RECOMMENDATIONS**

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain tractor as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tractor.

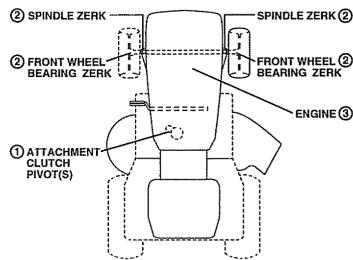
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

#### **BEFORE EACH USE**

- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

#### **LUBRICATION CHART**



- (1) SAE 30 OR 10W30 MOTOR OIL
- (2) GENERAL PURPOSE GREASE
- ③ REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

#### **TIRES**

- Maintain proper air pressure in all tires (See "PROD-UCT SPECIFICATIONS" on page 3 of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

**NOTE:** To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

#### **BLADE CARE**

For best results mower blades must be kept sharp. Replace bent or damaged blades.

#### **BLADE REMOVAL (See Fig. 13)**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

**IMPORTANT:** BLADE BOLT IS GRADE 8 HEAT TREATED. **NOTE:** We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

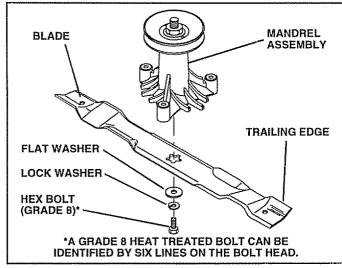


FIG. 13

#### TO SHARPEN BLADE (See Fig. 14)

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer).
- Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground.
   If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.

**NOTE:** Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

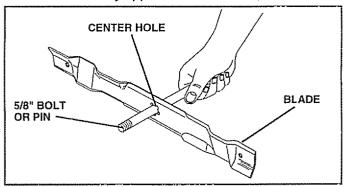


FIG. 14

#### **BATTERY**

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour.

#### TO CLEAN BATTERY AND TERMINALS

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "CONNECT BATTERY" in the Assembly section of this manual).

#### **V-BELTS**

Check V-belts for deterioration and wear after 100 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

#### TRANSAXLE COOLING

The fan and cooling fins of transmission should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

#### TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

#### **ENGINE**

#### **LUBRICATION**

Only use high quality detergent oil rated with API service classification SF, SG, or SH. Select the oil's SAE viscosity grade according to your expected operating temperature.

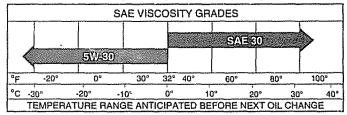


FIG. 15

**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL (See Figs. 15 & 16)

Determine temperature range expected before oil change. All oil must meet API service classification SF, SG or SH.

- Be sure tractor is on level surface.
- · Oil will drain more freely when warm.
- Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove drain plug.

- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.

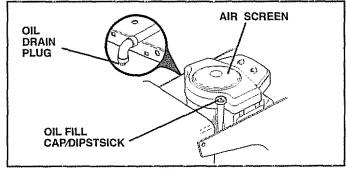


FIG. 16

#### **CLEAN AIR SCREEN (See Fig. 16)**

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

#### AIR FILTER (See Fig. 17)

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.

Service air cleaner more often under dusty conditions.

Remove knob(s) and cover.

#### TO SERVICE PRE-CLEANER

- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.
- Reinstall pre-cleaner over cartridge.
- Reinstall cover and secure with knob(s).

#### TO SERVICE CARTRIDGE

- Remove wing nuts and cartridge plate.
- Carefully remove cartridge to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge plate, wing nuts, precleaner, cover and secure with knob(s).

IMPORTANT: PETROLEUM SOLVENTS, SUCH AS KEROSENE, ARE NOT TO BE USED TO CLEAN THE CARTRIDGE. THEY MAY CAUSE DETERIORATION OF THE CARTRIDGE. DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.

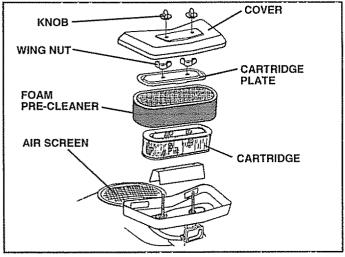


FIG. 17

#### **ENGINE COOLING FINS (See Fig. 18)**

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Air guide covers must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

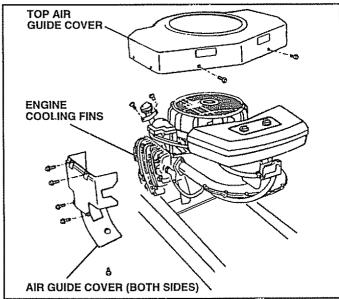


FIG. 18

#### MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

#### SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" on page 3 of this manual.

#### IN-LINE FUEL FILTER (See Fig. 19)

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

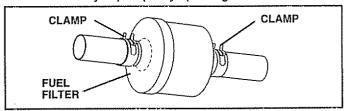


FIG. 19

#### CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.



#### **CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:**

- Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- · Place attachment clutch in "DISENGAGED" position.
- Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
- Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

#### TRACTOR

#### TO REMOVE MOWER (See Fig. 20)

Mower will be easier to remove from the right side of tractor.

- Place attachment clutch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- · Roll belt off engine pulley.
- Disconnect clutch rod from clutch lever by removing retainer spring.
- Disconnect anti-sway bar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.
- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

IMPORTANT: IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED TO THE TRACTOR, REMOVE THE FRONT LINKS.

#### TO INSTALL MOWER (See Fig. 20)

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

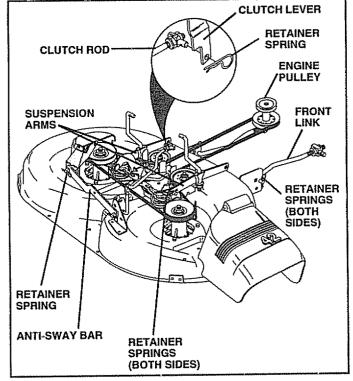


FIG. 20

#### TO LEVEL MOWER HOUSING

Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 21 and 22)

- · Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

**NOTE:** Each full turn of adjustment nut will change mower height about 1/8".

Recheck measurements after adjusting.

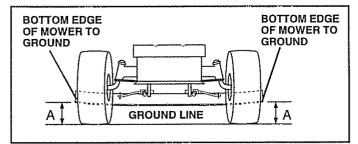


FIG. 21

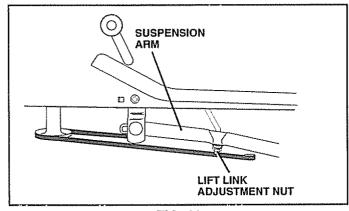


FIG. 22

FRONT-TO-BACK ADJUSTMENT (See Figs. X3 and X4)

IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- · Recheck side-to-side adjustment.

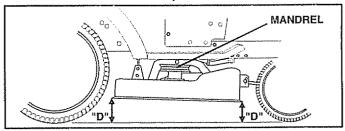


FIG. 23

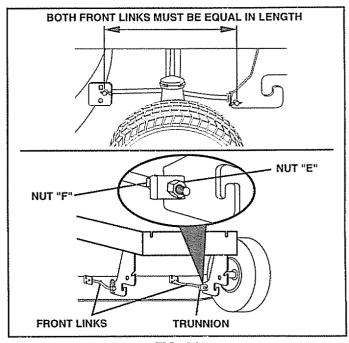


FIG. 24

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 25)

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- · Work belt off both mandrel pulleys and idler pulleys.
- · Pull belt away from mower.

#### **BELT INSTALLATION -**

- · Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt quides.
- Install mower in reverse order of removal instructions.

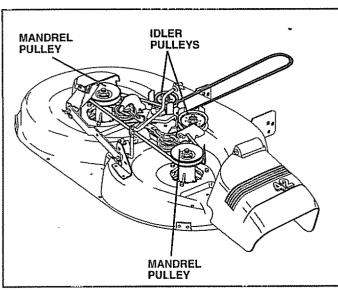


FIG. 25

#### TO ADJUST BRAKE (See Fig. 26)

Your tractor is equipped with an adjustable brake system which is mounted on the side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". Retighten jam nut against nut "A".
- Poad test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

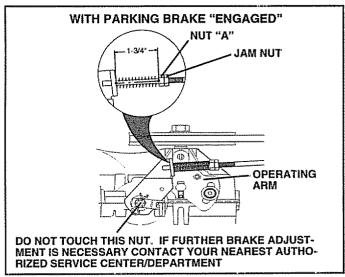


FIG. 26

## TO REPLACE MOTION DRIVE BELT (See Fig. 27)

Park the tractor on level surface. Engage parking brake. For assistance, there is a belt installation guide decal on bottom side of left footrest.

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downward from around engine pulley.
- Install new belt by reversing above procedure.

IMPORTANT: MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS.

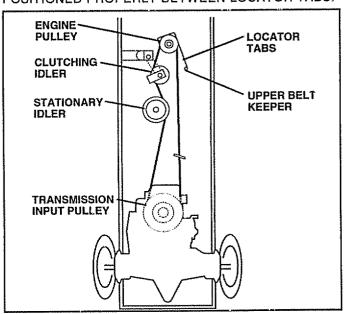


FIG. 27

## TO ADJUST MOTION CONTROL LEVER (See Fig. 28)

The motion control lever has been preset at the factory and adjustment should not be necessary.

If for any reason the motion control lever will not hold its position while at a selected speed, it may be adjusted at the friction pack located on the right side of transmission.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position, and engage parking brake.
- Adjust motion control lever by tightening adjustment locknut one half (1/2) turn.

**NOTE:** If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 to 1/2 turn.

Road test tractor after adjustment and repeat procedure if necessary.

#### TRANSMISSION REMOVAL/REPLACEMENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in the Operation section of this manual.

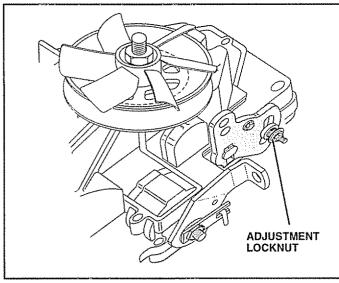


FIG. 28

#### TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

#### FRONT WHEEL TOE-IN/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center/department.

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 29)

- Block up axle securely.
- Remove axle cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace axle cover.

**NOTE:** To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

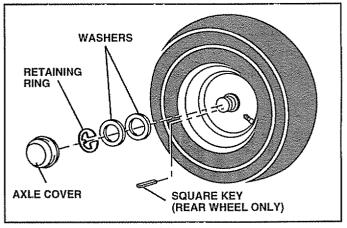


FIG. 29

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 30)



CAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

#### TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGA-TIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

#### TO REMOVE CABLES, REVERSE ORDER -

 BLACK cable first from chassis and then from the fully charged battery.

RED cable last from both batteries.

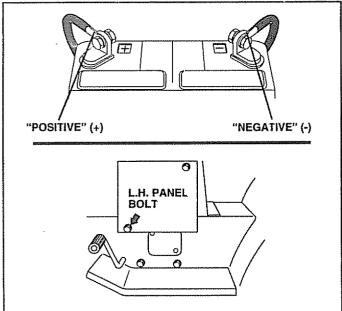


FIG. 30

#### TO REPLACE HEADLIGHT BULB

- Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- · Close hood.

#### INTERLOCKS AND RELAYS

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

 Check wiring. See electrical wiring diagram in the Repair Parts section of this manual.

#### TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

## TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 31)

- Raise hood.
- Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- To replace, reverse above procedures.

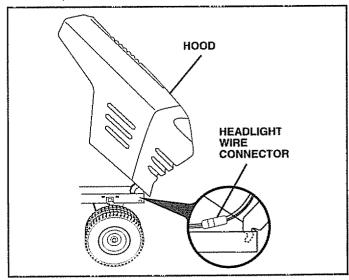


FIG. 31

#### **ENGINE**

## TO ADJUST THROTTLE CONTROL CABLE (See Fig. 32)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever to fast position.
- Check that swivel is against side of quarter circle. If it is not, loosen cable clamp screw and pull cable back until swivel is against quarter circle. Tighten cable clamp screw securely.

#### TO ADJUST CHOKE CONTROL (See Fig. 33)

The choke control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move choke control (located on dash panel) to full choke position.
- Remove air cleaner cover, filter and cartridge plate to expose carburetor choke (see "AIR FILTER" in the Customer Responsibilities section of this manual).
- Choke should be closed. If it is not, loosen casing clamp screw and move choke cable until choke is completely closed. Tighten casing clamp screw securely.
- Reassemble air cleaner.

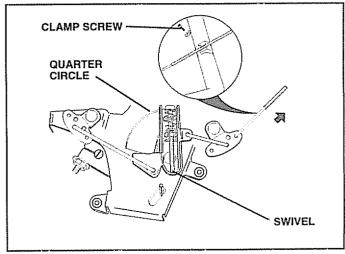


FIG. 32

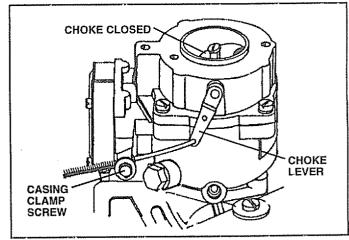


FIG. 33

## TO ADJUST CARBURETOR (See Figs. 34 & 35)

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the mixture screw in (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the mixture screw out (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

IMPORTANT: DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

#### PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable and choke are adjusted properly (see above).
- With engine off turn idle mixture screw in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 to 1-1/2 turns.

#### FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/ motion control lever in neutral (N) position.
- With throttle control lever in slow position, hold throttle lever against idle speed screw and adjust idle speed screw to obtain 1200 to 1400 RPM.
- While still holding throttle lever against idle speed screw, turn idle mixture screw in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn screw to a point midway between those two positions.
- Continue to hold throttle lever against idle speed screw and adjust idle speed screw to obtain 900 to 1200 RPM. Release throttle lever.

#### **ACCELERATION TEST -**

 Move throttle control lever from slow to fast position. If engine hesitates or dies, turn idle mixture screw out (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust - damage may result.

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

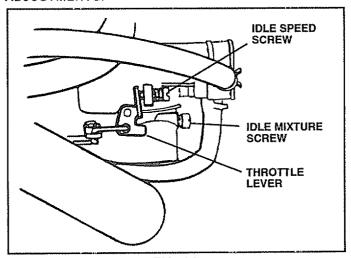


FIG. 34

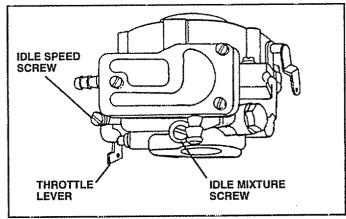


FIG. 35

### STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.



CAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

#### **TRACTOR**

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

#### **BATTERY**

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

#### **ENGINE**

#### **FUEL SYSTEM**

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Drain the fuel tank.
- Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- · Use fresh fuel next season.

**NOTE:** Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Customer Responsibilities section of this manual).

#### **CYLINDERS**

- Remove spark plug(s).
- Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- Turn ignition key to "START" position for a few seconds to distribute oil.
- Replace with new spark plug(s).

#### OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

## TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION			
Will not start	1. Out of fuel. 2. Engine not "CHOKED" properly. 3. Engine flooded. 4. Bad spark plug. 5. Dirty air filter. 6. Dirty fuel filter. 7. Water in fuel.  8. Loose or damaged wiring. 9. Carburetor out of adjustment	1. Fill fuel tank. 2. See "TO START ENGINE" in Operation section 3. Wait several minutes before attempting to start 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter. 7. Drain fuel tank and carburetor, refill tank with fingasoline and replace fuel filter. 8. Check all wiring. 9. See "To Adjust Carburetor" in Service Adjustmisection. 10. Contact an authorized service center/department.			
Hard to start	1. Dirty air filter. 2. Bad spark plug. 3. Weak or dead battery. 4. Dirty fuel filter. 5. Stale or dirty fuel. 6. Loose or damaged wiring. 7. Carburetor out of adjustment. 8. Engine valves out of adjustment.	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</li> <li>Contact an authorized service center/department.</li> </ol>			
Engine will not turn over	1. Clutch/brake pedal not depressed. 2. Attachment clutch is engaged. 3. Weak or dead battery. 4. Blown fuse. 5. Corroded battery terminals. 6. Loose or damaged wiring. 7. Faulty ignition switch. 8. Faulty solenoid or starter. 9. Faulty operator presence switch(es).	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>			
Engine clicks but will not start	Weak or dead battery.     Corroded battery terminals.     Loose or damaged wiring.     Faulty solenoid or starter.	<ol> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring</li> <li>Check/replace solenoid or starter.</li> </ol>			
Loss of power	1. Cutting too much grass/too fast. 2. Throttle in "CHOKE" position. 3. Build-up of grass, leaves and trash under mower. 4. Dirty air filter. 5. Low oll level/dirty oil. 6. Faulty spark plug. 7. Dirty fuel filter. 8. Stale or dirty fuel. 9. Water in fuel. 10. Spark plug wire loose. 11. Dirty engine air screen/fins. 12. Dirty/clogged muffler. 13. Loose or damaged wiring. 14. Carburetor out of adjustment.	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustment section.</li> <li>Contact an authorized service center/department</li> </ol>			
Excessive vibration	Worn, bent or loose blade.     Bent blade mandrel.     Loose/damaged part(s).	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Replace blade mandrel.</li> <li>Tighten loose part(s). Replace damaged parts.</li> </ol>			

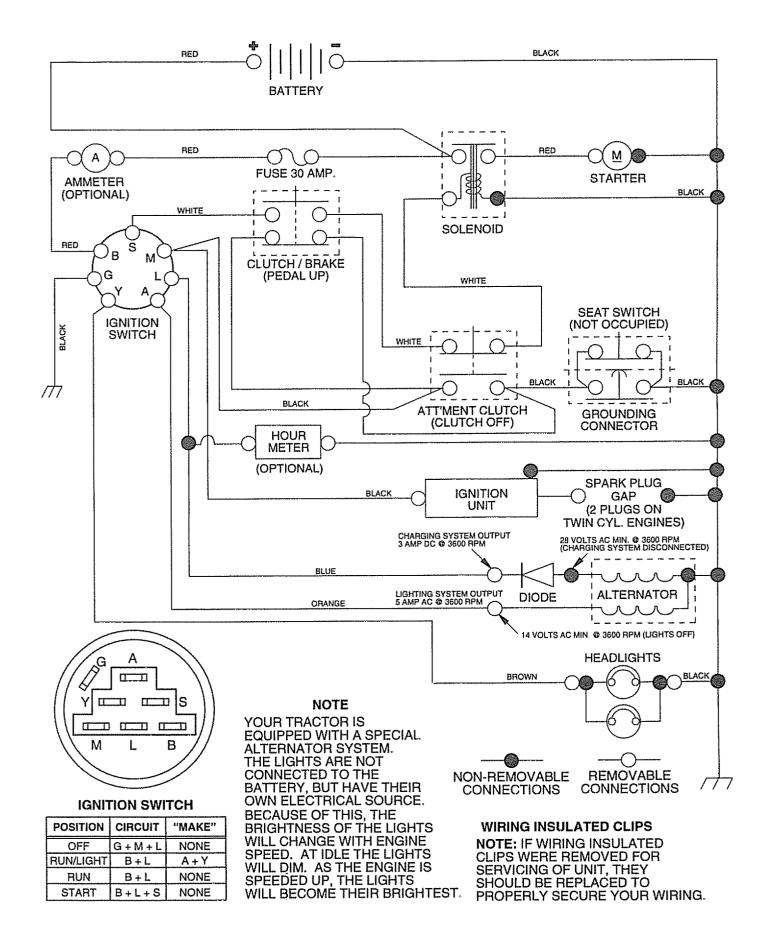
## TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION			
Engine continues to run when operator leaves sea with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.			
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes			
Mower blades will not rotate	Obstruction in clutch mechanism.     Worn/damaged mower drive belt.     Frozen idler pulley.     Frozen blade mandrel.	Remove obstruction     Replace mower drive belt     Replace idler pulley.     Replace blade mandret.			
Poor grass discharge	Engine speed too slow     Travel speed too fast     Wet grass     Mower deck not level     Low/uneven tire air pressure     Worn, bent or loose blade.     Buildup of grass, leaves and trash under mower.     Mower drive belt worn     Blades improperly installed.     Improper blades used.     Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.	1. Place throttle control in "FAST" position. 2. Shift to slower speed. 3. Allow grass to dry before mowing. 4. Level mower deck. 5. Check tires for proper air pressure. 6. Replace/sharpen blade. Tighten blade bolt. 7. Clean underside of mower housing. 8. Replace mower drive belt. 9. Reinstall blades sharp edge down. 10. Replace with blades listed in this manual. 11. Clean around mandrels to open vent holes.			
Headlight(s) not working (if so equipped)	1. Switch is "OFF". 2. Bulb(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse	Turn switch "ON".     Replace bulb(s).     Check/replace light switch.     Check wiring and connections.     Replace fuse.			
Battery will not charge	Bad battery cell(s).     Poor cable connections.     Faulty regulator (if so equipped).     Faulty alternator.	Replace battery.     Check/clean all connections.     Replace regulator.     Replace alternator.			
Loss of drive	Freewheel control in "disengaged" position.     Motion drive belt worn, damaged, or broken.     Air trapped in transmission during shipment or servicing.	Place freewheel control in "engaged" position.     Replace motion drive belt     Purge transmission.			
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.			

# SERVICE NOTES

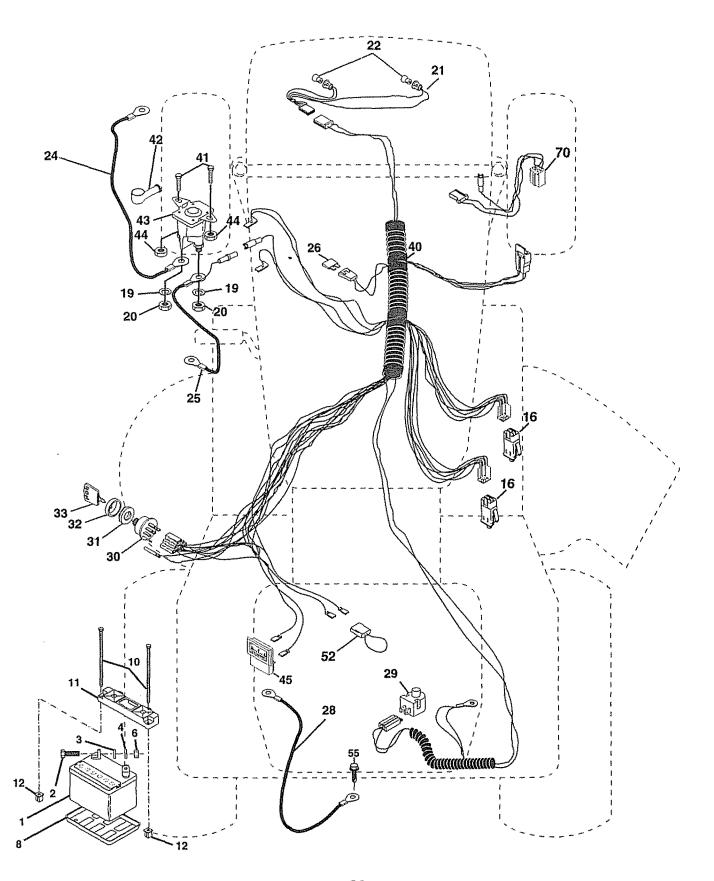
#### TRACTOR - - MODEL NUMBER 917.259172

#### **SCHEMATIC**



#### **TRACTOR - - MODEL NUMBER 917.259172**

#### **ELECTRICAL**



#### **TRACTOR - - MODEL NUMBER 917.259172**

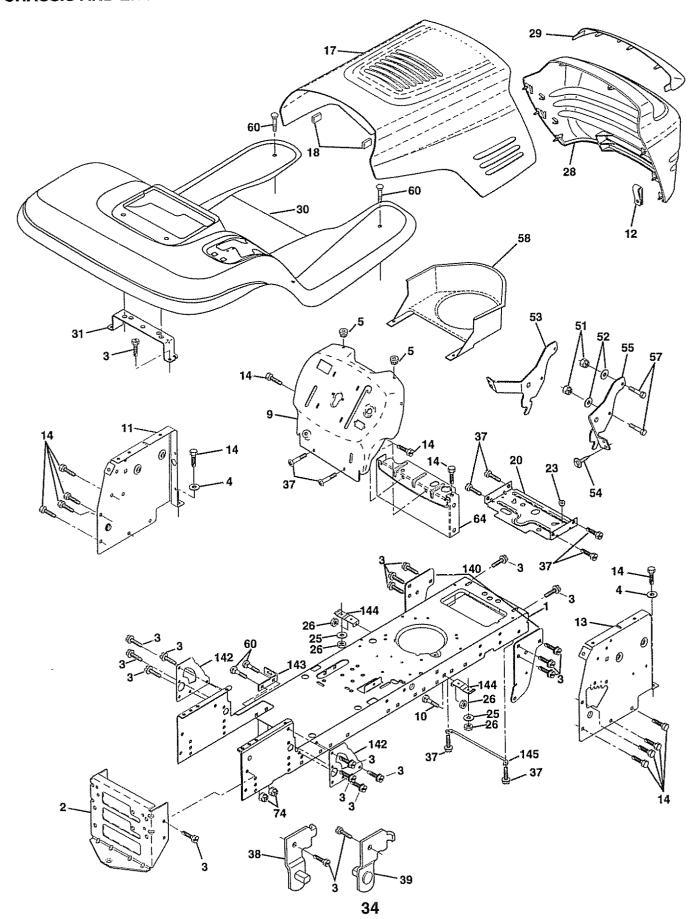
#### **ELECTRICAL**

KEY NO.	PART NO.	DESCRIPTION
26 28 29 30 31 32 33 40 41 42 43 44 45 52	STD551125 73350400 147430 4152J 4799J 146148 108824X 145491 121305X 140301 124211X 141226 109310X 156442 71110408 131563	Battery Bolt, Hex 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Gauge Washer, Lock 1/4 Nut, Hex 1/4-20 Tray, Battery Bolt, Btr Front 1/4-20 x 7-1/2 Holddown Battery Front Mount Nut, Push Nylon Battery Front 1/4 Switch Interlock Push-In Washer, Lock 1/4 Nut, Hex, Jam 1/4-20 Harness, Light Socket (w/4152J) Light Bulb Cable, Battery Cable, Battery Fuse Cable, Ground Switch, Seat Switch, Ignition 4 Position Nut, Ignition Cover, Ignition Switch Key, Molded, Craftsman Harness, Ignition Bolt Blk Fin Hex 1/4-20 UNC x 1/2 Cover, Terminal Solenoid Nut Keps Blk Hex 1/4-20 UNC Ammeter Rectangular 6 Amp Protection Wire Loop (Hour Meter) Screw Thdrol 5/16-18 x 1/2 Harness Engine B&S/Tec Dual

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

### TRACTOR - - MODEL NUMBER 917.259172

### **CHASSIS AND ENCLOSURES**



### **TRACTOR - - MODEL NUMBER 917.259172**

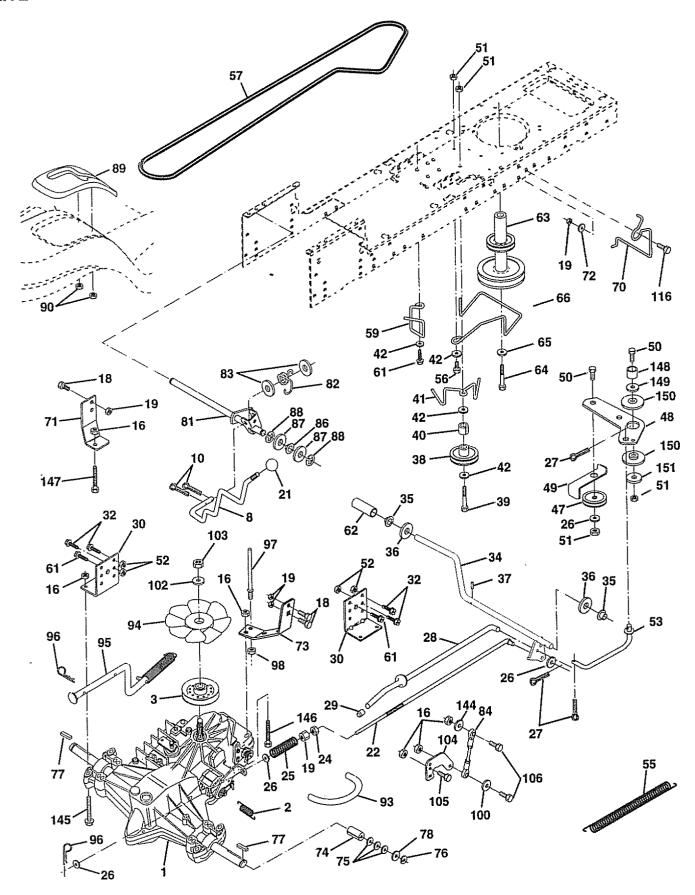
#### **CHASSIS AND ENCLOSURES**

KEY NO.	PART NO.	DESCRIPTION
142 143 144	160392 140356 17490612 STD5551025 155272 161917X011 STD533710 155927 145660 155936 17490608 144983X558 126938X 156437 124028X 19131312 STD541437 145198X558 155217 151287X558 139976 17490508 139886 139886 139887 73800400 19091416 145201 161464 145202 STD552507 140547 STD533707 154798 STD541437 158418 156095 154966 154207 156524	Chassis Drawbar Screw, Thd., Roll. 3/8-16 x 3/4 Type TT Washer 13/32 x 3/4 x 16 Gauge Bumper Hood/Dash Dash, Silkscreened Bolt, Carriage 3/8-16 x 1 Panel, Dash, LH Clip Tinnerman Grille P/L. Panel, Dash, RH Screw, Thd., Roll. 3/8-16 x 1/2 Type TT Hood Assembly Bumber Hood Plate Mtg Battery Fuel Tank Bushing, Snap, Nylon, Fuel Line Washer 13/32 x 13/16 x 12 Gauge Locknut, Hex, with Insert 3/8-16 UNC Grille, W/Clips MS-558 Lens, Grille Fender/Footrest Bracket, Fender/Support Screw, Thdrol. 5/16-18 x 1/2 TYT Pivot Bracket Assembly, LH, Mower, Rear Nut Lock W/Insert 1/4 - 20 UNC Washer 9/32 X 7/8 X 16 Ga. Bracket Grille Pickoff LH Screw, Hex Head Wshd 8-18 x 7/8 Bracket Grille Pickoff RH Bolt FinHex 1/4 -20 UNC X.75 Air Duct P/L 18HP B&S Opp. Twin Bolt Rdhd Sqnk 3/8-16 UNC x 3/4 Dash Lower STLT Nut Crownlock 3/8-16 UNC Bracket Suspension Front Plate Reinforcement STLT Backrest Swaybar Chassis Bracket Footrest STLT Rod Pivot Chassis / Hood

**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

### TRACTOR - - MODEL NUMBER 917.259172

#### DRIVE



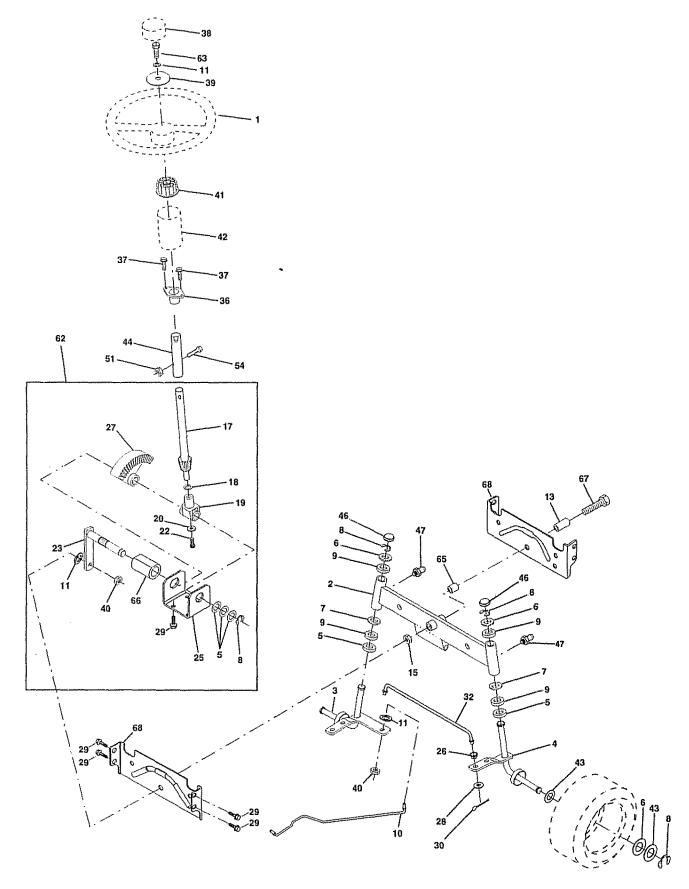
#### TRACTOR - - MODEL NUMBER 917.259172

#### **DRIVE**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
		Transaxle Assembly Spring, Return, Brake Pulley, Transaxle Rod Shift Fender STLT Pin Cotter 1/8 x 1 CAD Nut Lock Hex W/Ins. 5/16-18 Unc Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5 Nut Lock Hex W/Wsh 3/8-16 Unc Knob, Deluxe 1/2-13 Rod, Brake Hydro Nut, Hex Jam 3/8-16 Unc Spring, Brake Rod Washer Pin Cotter 1/8 x 3/4 CAD. Rod, Parking Brake Cap, Parking Brake Bracket, Transaxle Bolt Hex Hd 5/16-18 Unc x 3/4 Shaft, Foot Pedal Bearing, Nylon Washer Pin, Roll Pulley, Idler, Flat Bolt Spacer, Split Keeper, Belt Idler Washer 13/32 x 13/16 x 12 Gauge Pulley, Idler, V-Groove Bellcrank Clutch Grnd Drv Stl Retainer Belt Bolt Nut Crownlock 3/8-16 UNC Nut, Crownlock 5/16-18 Unc Link, Clutch Spring, Return, Clutch Bolt Hex 3/8-16 x 1-1/4 V-Belt, Ground Drive	NO. 65 666 70 71 72 73 74 75 76 77 78 82 83 84 86 87 88 99 93 94 95 96 97 98 1002 103 104 105 106 116 144 145 146	NO.  STD551143 161488 134683 140158 19132012 156347 121199X 121749X STD581075 123583X 121748X 161079 123782X 19171216 161901 157480 19212016 12000008 158388 124346X 142564 140462 144643 STD624003	Washer Keeper Belt Engine Guide Belt Mower Drive RH Strap Torque Lh Hydro 18/20" T Washer 13/32 X 1-1/4 X 12 Ga. Strap Torque Rh Hydro 0650 Spacer, Split Washer 25/32 x 1-1/4 x 16 Gauge E-Ring Key, Square Washer 25/32 x 1-5/8 x 16 Gauge Shaft Asm. Cross Hydro 20" Tires Spring Torsion T/A Washer 17/32 x 3/4 x 16 Ga. Rod, Tie Hydro 20" Tires Bushing Washer 21/32 x 1-1/4 x 16 Ga. Ring Klip #5304-62 Console, Shift Nut Self-Thd Wsh-hd 1/4 Zinc Line Fuel Hydro 4" Fan, Hydro 7" Control Bypass Hydro 20" Tires Retainer Spring 1" Zinc/Cad Keeper Bolt Rh Hydro 0750. 18/20" Nut Keps Hex 3/8-16 Unc Washer 11/32 x 3/4 x 16 Ga. Washer Bellville .501D x 1.50D Nut Hex Jam Toplock 1/4-20 Unf Arm, Control Hydro Screw Cap Hex 5/16 x 18 x 1 Bolt Fin Hex 5/16-18 Unc x 1-1/4 Botl Rdhd Sq Neck 3/8-16 x 1.25 Washer 13/32 x 5/8 x 16 Ga. Bolt Hex Flanged 5/16-18 unc x 2 Bolt Hex Flanged 5/16-18 unc x 2
59 61 62 63 64	140312 17490612 8883R 161399 71170764	Keeper, Center Span Screw Thdrol. 3/8-16 x 3/4 Ty. TT Cover, Pedal Pulley, Engine Bolt Hex 7/16-20 x 4 Gr. 5	148 149	159103 122052X 150935	Spacer Spacer Retainer Pm Mower Bushing Nylon Collered Washer 13/32 x 2 x 10 Ga.

## TRACTOR - - MODEL NUMBER 917.259172

#### STEERING ASSEMBLY



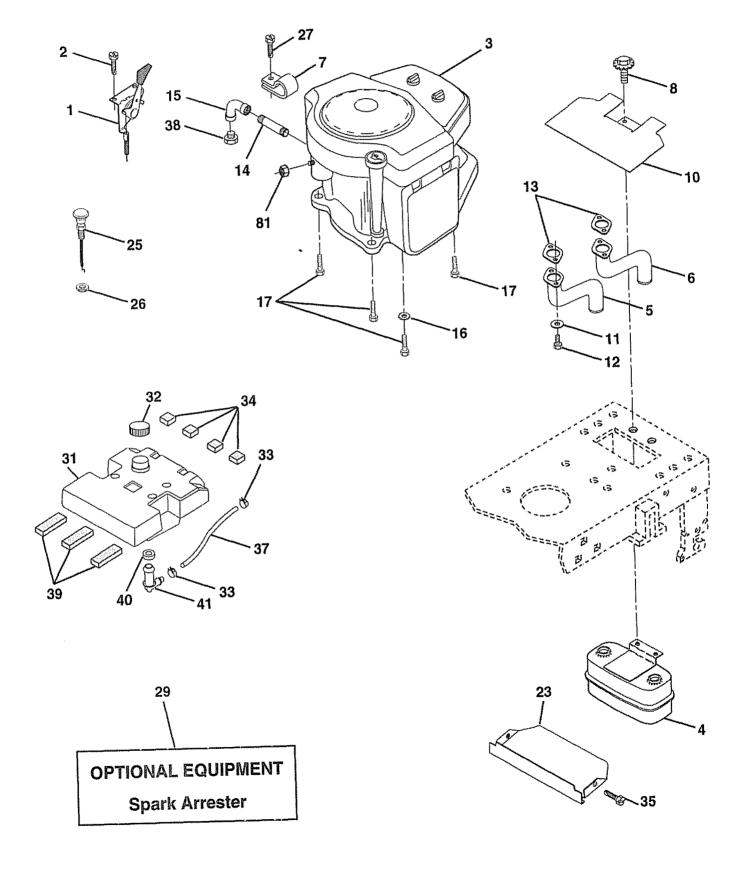
# **TRACTOR - - MODEL NUMBER 917.259172**

#### STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
NO.  1 2 3 4 5 6 7 8 9 10 11 13 15 17 18 19	NO.  139768 154427 156483 157473 6266H 121748X 19272016 12000029 3366R 156438 STD551137 154779 73901000 156546 57079 124035X	Wheel Steering Std Black Axle Asm Front Spindle Asm Lh Spindle Asm Rh Bearing Race Thrust Harden Washer 25/32 X 1 5/8 X 16ga Washer 27/32 X 1 1/4 X 16 Ga Ring Klip #t5304-75 Bearing Col Strg Blk Link Drag Extended Stamped Washer Lock Hvy Hlcl Spr 3/8 Bearing Axle STLT/GT Locknut Flange 5/8-11 UNC Shaft Asm Strg Private Label Washer Thrust 515x 750x 033 Support Shaft
20 22 23 25 26 27 28 29 30 32 36 37 38	126684X 71200410 127501 154406 126847X 136874 19131416 17490612 STD561210 130465 155099 152927 139769	Washer Shim 1/4 X 5/8 X 062 Screw Hex Socket 1/4-20 x 5/8 Shaft Asm Pittman Bracket Steering Bushing Rod Tie Blk Lt Gear Sector Washer 13/32 X 7/8 X 16ga Screw Thdrol 3/8-16x3/4 Ty-tt Pin Cotter 1/8 X 3/4 Cad Rod Tie Wire Form 19 75 Mech Bushing Strg 5/8 ld Dash Screw TT #10-32x5x3/8 Flange Insert Cap Strg Wheel Std Blk
39 40 41 42 43 44 46 47 51 54 62 63 65 66 67 68	19133808 STD541537 100711L 145054 121749X 153720 121232X 6855M STD541431 74780520 156594 STD523710 154780 154404 74781044 154429	Washer 13/32 X 2-3/8 X 8 Ga Nut Lock Center 3/8-24 UNF Adaptor Wheel Strg Boot Shaft Steering Washer 25/32 X 1 1/4 X 16 Ga Extension Steering Non-Adjust Cap Spindle Fr Top Blk Fitting Grease Nut Lock Hex W/Ins 5/16 -18 UNC Bolt Fin Hex 5/16 - 18 UNC X 1 -1/4 Kit, Steering Assembly Bolt Fin Hex 3/8-16unc x 1 Gr.5 Spacer Axle Bearing Arm Pittman Bolt Fin Hex 5/8-11 UNC x 2-3/4 Axle Brace

# TRACTOR - - MODEL NUMBER 917.259172

## ENGINE



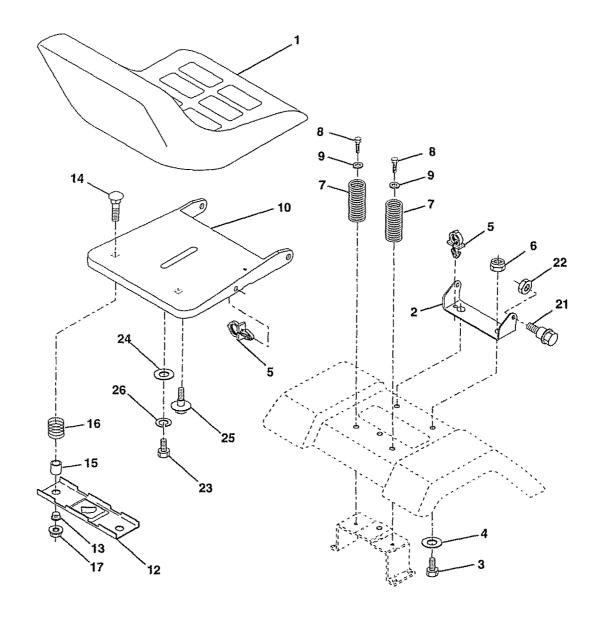
## **TRACTOR - - MODEL NUMBER 917.259172**

#### **ENGINE**

KEY NO.	PART NO.	DESCRIPTION
1 2 3	162152 17720410	Control Throt Paddle 32 22 Screw Hex Thd Cut 1/4-20x5/8 T Engine (See Breakdown) Briggs Model No. 42E707-2631-E1
4 5 6 7	149723 144069 144068 138129	Muffler Exhaust Exhaust Asm. Left Exhaust Asm. Right Clamp Tube Double Engine
8 10 11	150176 145552 STD551125	Bolt 5/16 - 18 UNC X 3/4 W/Sems Heat Shield Lt Washer Lock Hvy. Helical 1/4
13 14	STD522507 272250 13280336 13200300	Bolt Fin Hex 1/4-20 x 3/4 Gasket Muffler Nipple Pipe 4-1/2" Fibous Std 40 Degree 3/6 48 Net
16 17	STD551237 17490624 159880	Elbow Std 90 Degree 3/8-18 Npt Washer Lock Ext Tooth 3/8 Screw Thdrol 3/8-16x1-1/2 Tytt Shield Browning / Debris Guard
26 27	145996 73920600 152927	Control Choke Nut Keps 3/8-24 Unf Screw TT #10-32 x 5 x 3/8 Flange
29 31 32 33	137180 157103 161696 123487X	Arrestor Spark Tank Fuel 3 50 Rear Cap Fuel Guage STLT Clamp Hose Blk
34 35 37	106082X 17490512 8543R	Spacer Pad Screw Thdrol 5/16-18 x 3/4 TYT Line Fuel
38 39	109227X	Plug Oil Drain (Order From Engine Manufacturer) Pad Idler 1.75 x .75 x .06
40 41 81	3645J 139277 128861	Bushing Stem Tank Fuel Nut, Flange 1/4-20 Starter Nut

## **TRACTOR - - MODEL NUMBER 917.259172**

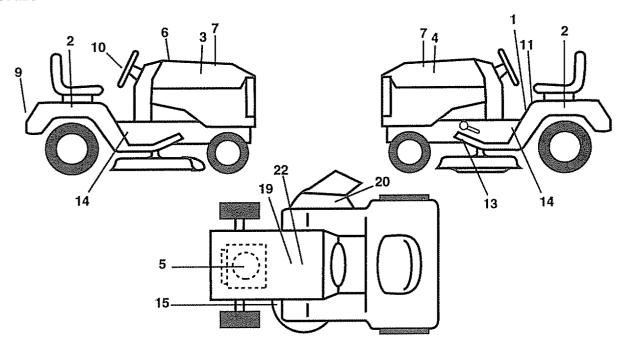
#### **SEAT ASSEMBLY**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	140123	Seat	14	72050412	Bolt Rdhd Sht Nk 1/4-20x1-1/2
2	140551	Bracket Pnt Pivot Seat (blk )	15	134300	Spacer Split 28 X 96 Zinc
3	STD523710	Bolt Fin Hex 3/8-16 UNC x 1	16	121250X	Spring Cprsn 1 27 Blk Pnt
4	19131610	Washer Flat 13/32 x 1 x 10 Ga	17	123976X	Nut Lock 1/4 Lge Flg Gr 5 Zinc
5	145006	Clip Push-In	21	153236	Bolt Shoulder 5/16-18 Unc
6	STD541437	Nut Lock Hex W/Ins 3/8 -16 UNC	22	STD541431	Nut Lock Hex W/Ins 5/16-18
7	124181X	Spring Seat Cprsn 2 250 Blk Zi	23	74780814	Bolt Fin Hex 1/2-13 X 7/8 Gr 5
8	17490616	Screw 3/8-16x1	24	19171912	Washer 17/32 X 1-3/16 X 12 Ga
9	19131614	Washer 13/32 x 1 x 14 Ga	25	127018X	Bolt Shoulder 5/16-18 X 62
10	155925	Pan Pnt Seat (blk )	26	STD551150	Washer Lock Hvy Hlcl Spr 1/2
12	121246X	Bracket Pnt Mounting Switch			·
13	121248X	Bushing Snap Blk Nyl 50 ld	ТОИ	<b>E:</b> All compon 1 inch = 25	ent dimensions given in U.S. inches .4 mm

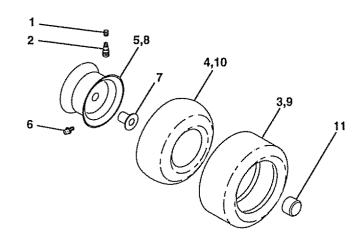
## **TRACTOR - - MODEL NUMBER 917.259172**

#### **DECALS**



KEY NO.	PART NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1 2 3 4 5 6	156439 156810 160284 160285 273503 133644	Decal Fender Danger Sears Decal Fend Auto Sears Gold Decal Hood Rh Craftsman Decal Hood Lh Craftsman Decal Engine B&S Decal Maint Customer Sears Dom	14 147138 15 160396 19 138047 20 156787 22 149516 138311	Decal Chassis Hydro 42" Decal Mower Drive Schematic Decal, Battery Diehard Sears Decal Deck Mower EZ3 Mulching Decal Battery Decal Lift Handle Decal, Drawbar Cntrl. Myt. Hyd. Lt.
7 9 10 11 13	150927 146709 150333 156811 146046	Decal Panel Side B&S5 Decal Fender Craftsman Gold Decal, Cap CNSMR Help Line SRS Decal Fender STLTH Oper Inst E/S Decal V-belt Dr Sch Tractor E	142341 154515 154516 164030 164031	Pad Footrest Lh STLT Pad Footrest Rh STLT Manual, Owner's (English) Manual, Owner's (Spanish)

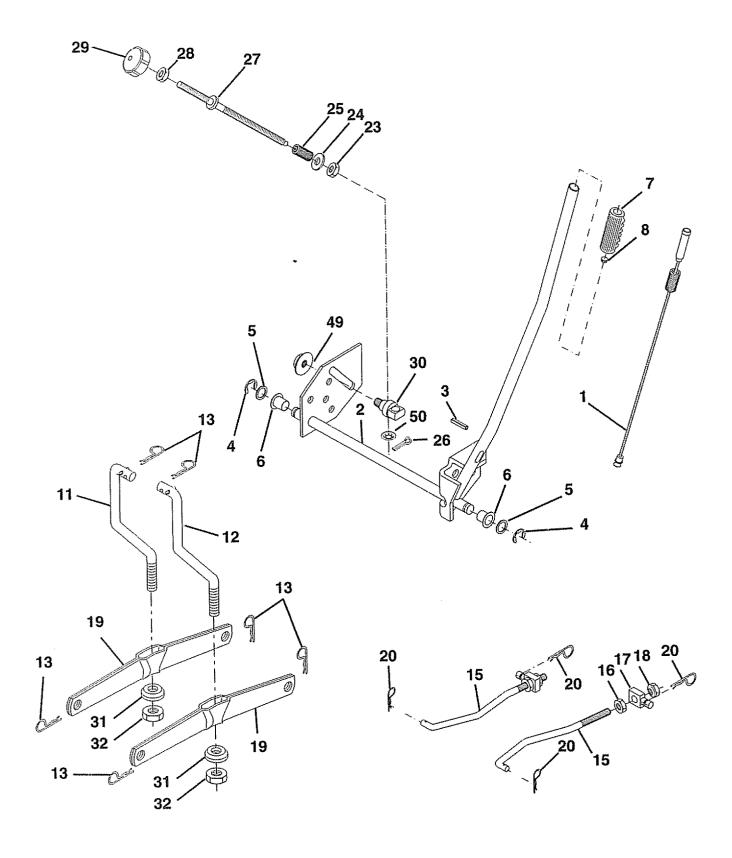
#### **WHEELS & TIRES**



KEY NO.	PART NO.	DESCRIPTION
1	59192	Valve Cap, Tire
2	65139	Stem, Valve
2 3	106222X	Tire, Front
4	59904	Tube, Front Tire
		(Not Provided, Service Item Only)
5	106732X427	Rim, Front
6	278H	Fitting, Grease (Front Wheel Only)
7	9040H	Bearing, Flange (Front Wheel Only)
8	106108X427	Rim, Rear
9	122082X	Tire, Rear
10	7152J	Tube, Rear Tire
		(Not Provided, Service Item Only)
11	104757X	Cap, Axle
	144334	Sealant, Tire (10 oz. Tube)
		· · · · · · · · · · · · · · · · · · ·

# **TRACTOR - - MODEL NUMBER 917.259172**

#### **MOWER LIFT**



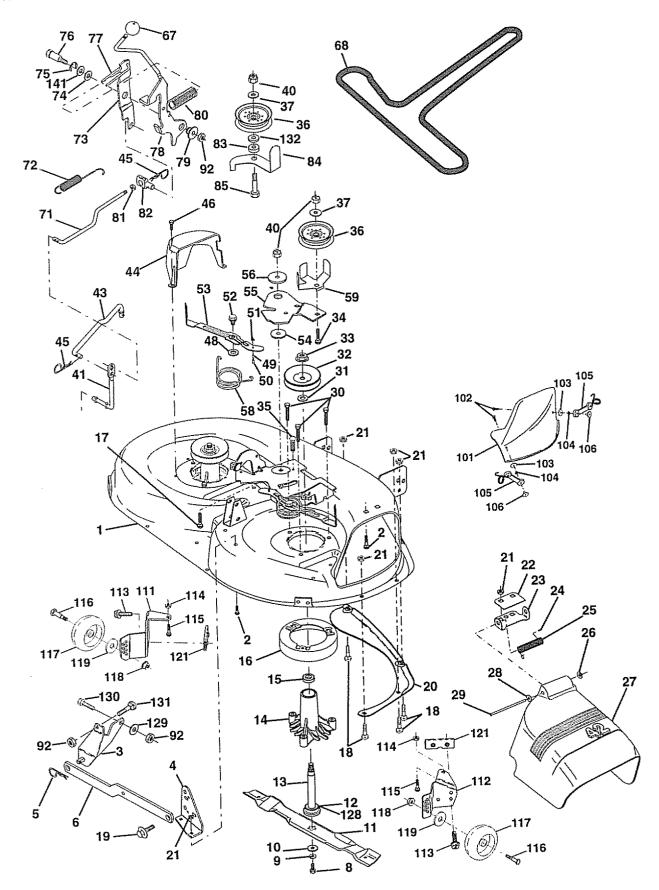
#### **TRACTOR - - MODEL NUMBER 917.259172**

#### **MOWER LIFT**

KEY NO.		DESCRIPTION
NO. 1 2 3 4 5 6 7 8 11 12 13 15	NO.  159460 159471 105767X 12000002 19211621 120183X 125631X 122365X 139865 139866 STD624008 127218	Wire Assy., Inner, Spring w/Plngr Lt Shaft Asm. Lift Pin Groove E Ring #5133-62 Washer 21/32 x 1 x 21 Ga. Bearing Nylon Grip Handle Fluted Button Plunger Read Link Lift Lh Fixed Length Link Lift Rh Fixed Length Retainer Spring Link Front
17 18 19 20 23 24 25 26 27 28 29 30 31 32	110807X 19131016 2876H STD560907 126971X STD541237 138057 150233	Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Crownlock 1/2-1/3 Unc Arm Suspension Rear Retainer Spring Nut Spring Washer 13/32 x 5/8 x 16 Ga. Spring 2-1/8" Pin cotter 3/32 x 1/2 Rod Adj. Lift Nut Hex Jam 3/8-16 Knob Inf. 3/8-16 Trunnion Infin. Height Bearing, Pivot, Lift, Special Nut, Crownlock 3/8-24 Nut Flange Lock Nut Push Phos & Oil

# TRACTOR - - MODEL NUMBER 917.259172

#### **MOWER DECK**

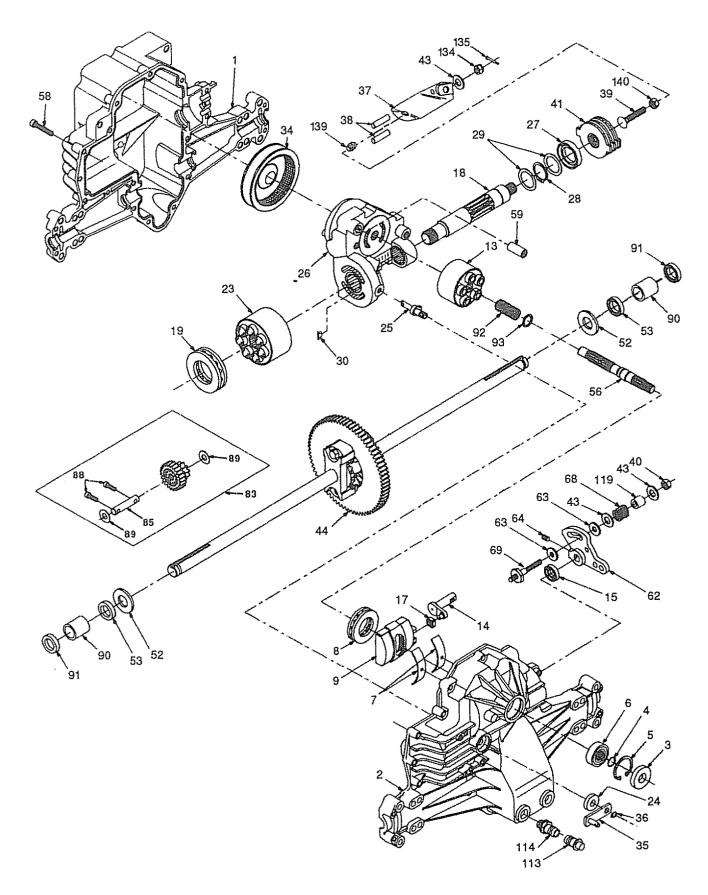


## TRACTOR - - MODEL NUMBER 917.259172

#### **MOWER DECK**

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2	144393 STD533107	Mower Deck Assembly, 42" Bolt	58 59	140086	Spring, Torsion, Brake
3	138017	Bracket Asm Fr. Sway Bar		141043 162113	Guard, Idler Knob Custom Dual
4	138440	Bracket Asm Deck 42" Sway Bar		144200	V-Belt, 42" Mower
5	STD624008	Retainer Spring	71	142427	Rod, Clutch, Primary
6	130832	Arm, Suspension, Rear		131870	Spring, Extension, Return
8	850857	Bolt 3/8-24 x 1.25 Grade 8		127847	Arm, Clutch, Secondary
. 9	STD551137	Washer, Lock	74	121748X	Washer 25/32 x 1-5/8 x 16 Gauge
10	140296	Washer, Hardened		12000029	Ring, Klip
11 12	134149	Blade, Mulching, 42" Mower Deck		128903	Bolt, Shoulder 3/8-16 UNC x 1.44
13	129895 137645	Bearing, Ball Shaft Assembly, Mandrel, Vented	77 78	127845 160570	Keeper, Spring
10	1010-10	(Includes Key Number 12)		127498	Arm, Clutch, Primary Bushing, Large, Brass
14	128774	Housing, Mandrel, Vented		153701	Spring, Mower Clutch
	110485X	Bearing, Ball, Mandrel	81	73350600	Nut, Hex, Jam 3/8-16
16	140329	Stripper, Vented Mower Deck		142028	Trunnion
17	72110610	Bolt, Carriage 3/8-16 x 2-1/4		120958X	Washer, Sintered
18	STD533106	Bolt, Carriage 5/16-18 x 5/8		156084	Keeper, Belt Idler
19	132827	Bolt, Shoulder		72140618	Bolt Rdhd Sq 3/8-16 Unc x 2-1/4
20 21	159770 STD541431	Baffle, Vortex Nut Crownlock 5/16-18	92	STD541437 136420	Locknut, Hex W/Wash Insert
22	134753	Stiffener Bracket		71161010	Mulcher cover Screw
23	131267	Bracket, Deflector		19061216	Washer #10
	105304X	Cap, Sleeve		STD551110	Washer, Lock
25	123713X	Spring, Torsion, Deflector	105	160793	Latch Assembly, Bagger
26	110452X	Nut, Push	106	2029J	Nut, Weld
27	130968	Shield, Deflector	111	155197	Bracket, Gauge, Wheel L.H.
28	19111016	Washer 11/32 x 5/8 x 16 Gauge	112	155198	Bracket, Gauge, Wheel R.H.
	131491 157722	Rod, Hinge Screw Thdrolling Washer Head		17490512 STD541431	Screw, Thdrol 5/16 -18 x 3/4
31	129963	Washer, Spacer		72110504	Nut, Hex Keps 5/16-18 UNC Bolt, Carriage 5/16 UNC x 1/2
32	153535	Pulley, Mandrel		137644	Bolt, Shoulder
33	137266	Nut, Flanged, Toplock 9/16		133957	Wheel, Gauge
34	STD533717	Bolt	118	73930600	Nut, Centerlock 3/8-16
35	133835	Fastner, Christmas Tree	119	STD551037	Washer 3/8 x 7/8 x 14 Ga.
36	131494	Pulley, Idler, Flat		143723	Bracket, Extruded Gauge Wheel
37 40	STD551037 STD541437	Washer 13/32 x 13/16 x 16 Gauge		153390	Washer Felt
41	133551	Nut, Crownlock Rod, Pivot, with Nibs	129	19131312 STD523710	Washer 13/32 x 13/16 x 12 Ga Bolt Fin Hex 3/8-16 UNC x 1 Gr5
43	140083	Rod, Clutch, Secondary, with Nibs		STD533710	Bolt Rdhd Sgnk 3/8-16 UNC x 1
44	140088	Guard, Mandrel, LH		19132203	Spacer Washer 13/32 I.D. x 1-3/8
45	STD624003	Retainer			O.D. x 1/4
46	137729	Screw, Hex Hd, Thdcut 1/4-20 x 5/8	141	6266H	Washer Thrust .75 x 1.230
48	133944	Washer, Hardened	* *	130794	Mandrel Assembly (Includes Key
49	155066	Roller Assembly, Cam Follower		4 4 7 4 4 4	Numbers 8-10, 12-15, 31 and 33)
50 51	131340 STD541410	Bolt, Shloulder #10-24 Grade 5	~ <del>=</del>	145411	Mower Deck, Complete
52	139888	Locknut Bolt, Shoulder 5/16-18 UNC			(Standard Deck; Order Mulcher Plate and Gauge Wheel
53	131845X900	Arm Assembly, Pad, Brake			Components Separately - Key
54	133943	Washer, Hardened			Nos. 101-106, 111-119, 121)
55	155046	Arm, Idler			
56	122052X	Spacer, Retainer	NOT	E: All compon	ent dimensions given in U.S. inches
				1 inch = 25	.4 mm

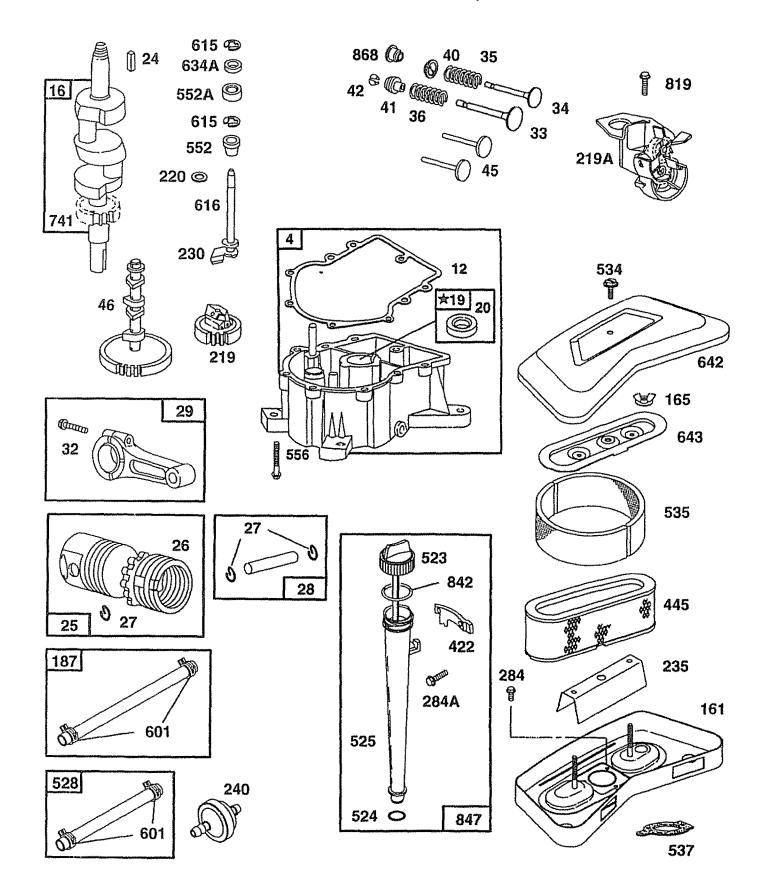
# TRACTOR - - MODEL NUMBER 917.259172 HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650

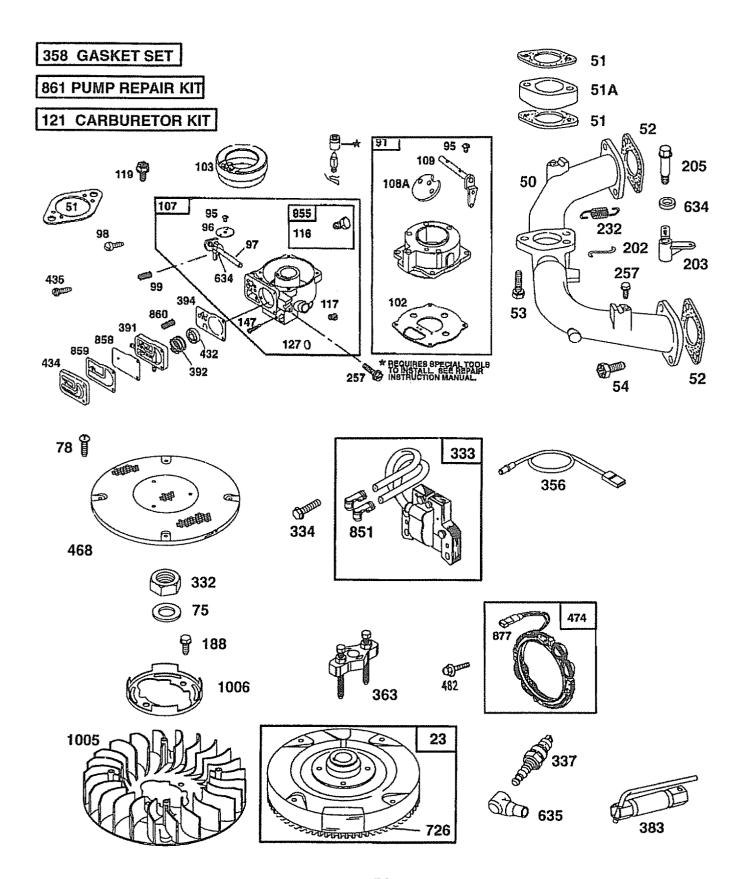


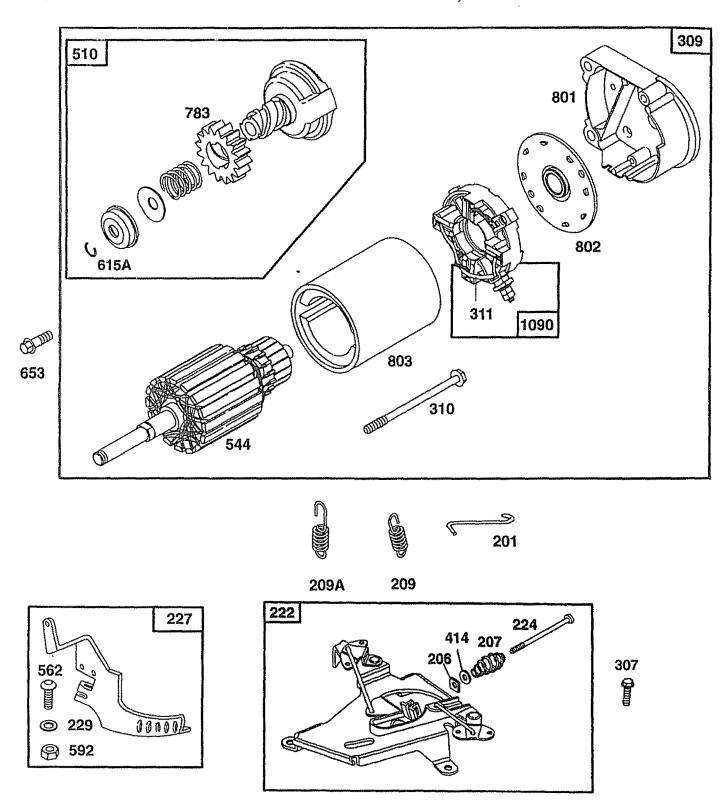
## **TRACTOR - - MODEL NUMBER 917.259172**

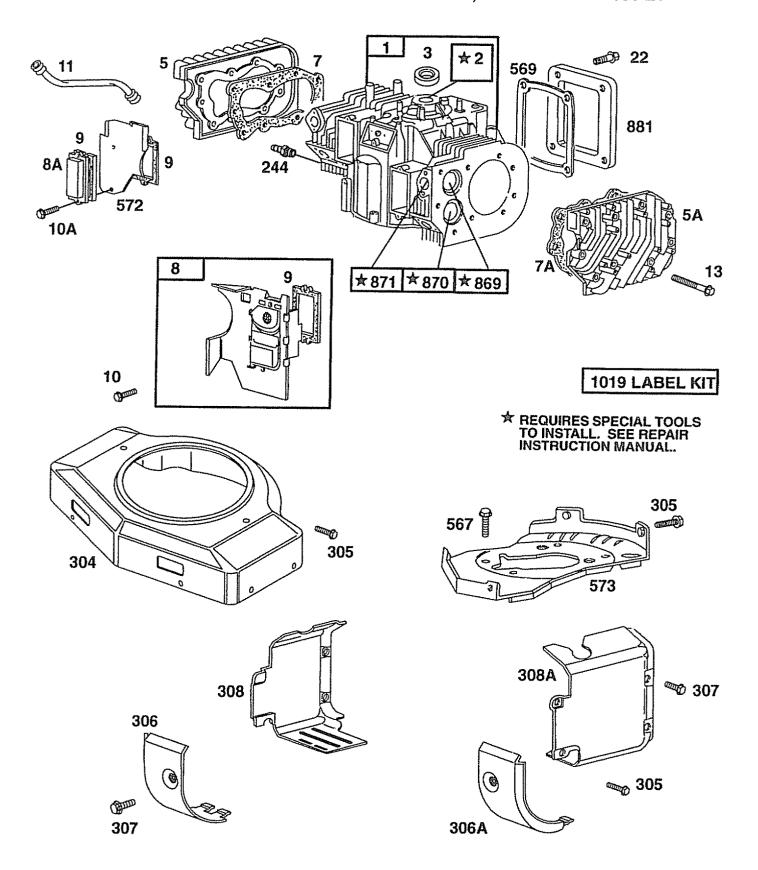
#### **HYDRO GEAR TRANSAXLE - MODEL NUMBER 310-0650**

	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	142930	Housing, Lower	43	142884	Washer 7/16 x 7/8 x .060
2	142931	Assembly, Upper Housing	44	150829	Differential Assembly
3	142932	Seal, Lip	52	142991	Washer 3/4 x 1.5 x .13
4	142928	Ring, Wire Retaining	53	142961	Seal .75 x 1.25 x .250
5	142933	Ring, Retaining	56	142963	Shaft, Input
6	142934	Bearing, Shaft Ball	58	142964	Bolt 1/4-20 x 1.38
7	142935	Bearing, Cradle	59	142965	Pin .5 OD x .43 ID x .750
8	150771	Bearing, Thrust 30 x 52 x 13	62	142966	Arm, Control
9	142937	Swashplate, Variable	63	142967	Puck, Dampener
13	142938	Block, Cylinder Assembly	64	142920	Set Screw
14	142939	Arm, Trunnion	68	142969	Spring
15	142940	Seal, Lip	69	144610	Stud 5/16-24
17	142941	Guide, Slot	83	142971	Jackshaft Assembly
18	150772	Shaft, Motor	85	150806	Jackshaft
19	150773	Bearing, Thrust 42 x 68 x 16	88	142973	Screw, Cap
23	142944	Block, Cylinder Assembly		142974	Washer 7/16 x 1 x 1/2
24	142945	Seal, Lip 10 x 25 x 7		142975	Sleeve Bearing
25	142946	Actuator, Bypass		142976	Seal, Wiper
26	150774	Center Section Assembly Kit		142977	Spring, Block
27	142948	Seal, Lip 26 x 42 x 8	93	142978	Washer, Block Thrust
28	142949	Ring, Retaining		142917	Cap, Vent Assembly
29	142950	Washer 26 x 35 x 1		142918	Fitting, O-Ring Assembly
34	142951	Oil Filter Element		142980	Spacer
35	142952	Arm, Bypass	134	144607	Nut, Castle 5/16-24
36	142953	Ring, Retaining	135	144608	Pin, Cotter
37	142954	Arm, Actuating		150775	Spring, Compression
38	142955	Pin, Actuating	140	150776	Nut, Hex 5/16-24
39	150777	Bolt 5/16-24 x 1-3/4			
40	150778	Locknut, Hex 5/16-24 UNJC	NOTI		int dimensions given in U.S. inches
41	142958	Brake Rotor/Stator Kit		1 inch = 25.4	4 mm









KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	497074	Cylinder Assembly		93208	Screw, Phillips
2	399265	Bushing		222511	Washer, Spring
3	391086	* Seal, Oil		95039	Screw, Hex
4	493304	Sump, Engine	91	499281	Body Assembly, Upper
5	493457	Head, Cylinder #1	95	93499	Screw, Sems
5Ă	493458	Head, Cylinder #2	96	221939	Valve, Throttle
7	271867	* Gasket, Cylinder Head #1	97	499172	Shaft, Throttle
7Á	271868	* Gasket, Cylinder Head #2	98	91920	Screw, Fillister Head
´8	495754	Breather Assembly #1		26157	Spring, Throttle Adjust
8Ă	222892	Cover, Breather Cylinder #2		271607	** Gasket, Carburetor Body
٠, ١		(Used Only on Key #572,		298514	Float, Carburetor
		Air Baffle with Holes for Mounting)		231435	** Pin, Float Hinge
9	27803	* Gasket, Breather		394682	** Valve, Needle
10	94382	Screw, Sems		499655	Body Assembly, Lower
	94830	Screw, Sems		225373	Valve, Choke
11	280225	Tube, Breather		392673	Shaft, Choke
12	273208	* Gasket, Crankcase, .015" Thick		280474	* O-Ring
	271188	* Gasket, Crankcase, .005" Thick	117	232018	Jet, Needle Valve, Fixed
	271189	* Gasket, Crankcase, .009" Thick		232022	Jet, Needle Valve, Fixed,
13	94565	Screw, Cylinder Head			High Altitude
15	94239	Plug, Oil Drain		94152	Screw, Hex Head
16	394028	Crankshaft		491539	Carburetor Kit
	94196	Tirning Gear Key		19306	Carburetor
19	399264	Bushing		223472	** Plug, Welch
20	291675	* Seal, Oil		496599	Base, Air Cleaner
22	94724	Screw, Sems		94289	Nut, Wing
23	491180	Flywheel		299146	Line, Fuel, 28" Long (Cut to Suit)
24	222698	Key, Flywheel		94627	Screw
25	498584	Piston Assembly, Standard Size		262683	Link Link
	498585	Piston Assembly, .010" Oversize		262684 280997	Crank, Bell
	498586	Piston Assembly, .020" Oversize	205	93971	Screw, Hex Head
	498587	Piston Assembly, .030" Oversize	206	94298	Nut
26	394959	Ring Set, Standard Size	207	262337	Spring, Control, Rod
	394960	Ring Set, .010" Oversize	209	262352	Spring, Governor
	394961	Ring Set, .020" Oversize	209A		Spring, Governor Idle
~ ***	394962	Ring Set, .030" Oversize	219	394348	Gear, Governor
27	263129	Lock, Piston Pin	219A		Oil Slinger
28	498319	Pin, Piston, Standard Size	220	222773	Washer, Thrust
00	391286	Pin, Piston, .005" Oversize	222	491282	Bracket, Control
29	394306	Rod, Connecting, Standard Size	224	94297	Screw, Torx®
20	397158	Rod, Connecting, .020" Undersize			
32 33	94671 390420	Screw, Connecting Rod Valve, Exhaust	*	Included in	Gasket Set (495868)
34	261528	Valve, Intake			• •
35	65906	Spring, Valve, Intake	**	Included in	Carburetor Kit (491539)
36	26828	Spring, Valve, Exhaust			
40	221596	Retainer, Valve, Intake	***		Carburetor Kit (491539),
41	292260	Retainer, Valve, Exhaust		and Pump I	Repair Kit (393397)
42	494553	Keeper, Valve			- 1 . 0 . //-maam
45	261368	Tappet, Valve	***		Gasket Set (495868),
46	214484	Gear, Cam		and Carbur	etor Kit (491539)
50	213290	Manifold, Intake	MAT	E. Allaams	anont dimanaiana aiyan in II Q inahaa
51	271412	**** Gasket, Carburetor Mounting	NOT		onent dimensions given in U.S. inches 25.4 mm
	281412	Spacer, Carburetor		1 111011 =	mu₁= IIIIII
52	270884	* Gasket, Intake Manifold Mounting			
53	93970	Screw, Hex Head,			
		Carburetor to Manifold			

## TRACTOR - - MODEL NUMBER 917.259172

# BRIGGS & STRATTON ENGINE - MODEL NUMBER 42E707, TYPE NUMBER 2631-E1

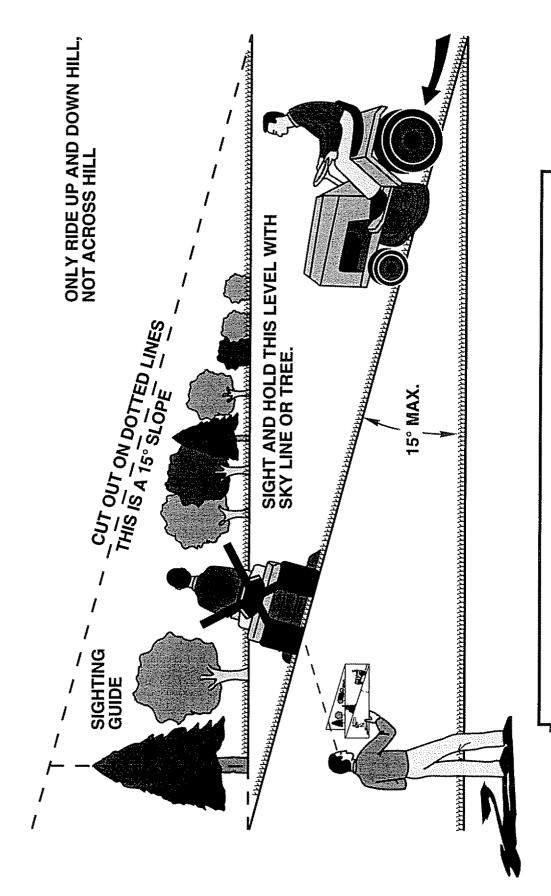
KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
	Lever Assembly, Governor Washer Washer, Governor Crank, Inside Shield, Fuel Spray Filter, Fuel Connector, Fuel Line Screw, Sems Screw, Hex Head Screw, Hex Head Housing, Blower, Red Screw, Sems Shield, Cylinder Shield, Cylinder Screw, Self-Tapping Cover, Air Guide	NO. NO.  556 93585 562 93853 567 94811  569 272645 572 224816 573 491304 592 92278 601 93053 615 94296 615A 263080 616 491530 634 271013 634A 491287 635 66538 642 225008 643 496700 653 93585 726 391362  741 262989 783 280104 801 394860 802 497607 803 497604 819 94675 842 270920 847 495715 851 493880 858 270989 859 271025 860 261358 861 393397 868 497212 869 261463 870 213316 871 261961 231218 877 393456 881 495901 955 397882 1005 281053 1006 224901 1019 496726 1090 497605  * Included in	Screw, Hex Head Bolt, Governor Lever Screw, Hex Head, Back Plate to Cylinder  * Gasket, Base  Baffle, Air, Cylinder #2 Plate, Back Nut, Hex. Clamp, Hose Retainer, E-Ring Retainer Crank, Governor  ** Washer, Throttle Shaft  * Seal, Governor Shaft Boot, Spark Plug Cover, Air Cleaner Plate, Air Cleaner Plate, Air Cleaner Screw, Hex Head Gear, Ring (Includes Mounting Parts) Gear, Timing Gear, Starter Cap, Drive Cap, End Housing, Starter Screw, Hex Head  * Seal, Cap Tube Assembly, Oil Terminal, Cable  *** Diaphragm, Carburetor  *** Gasket, Pump  *** Spring, Diaphragm Repair Kit, Pump Seal, Valve Seat, Valve, Intake Seat, Valve, Intake Seat, Valve, Exhaust Bushing, Guide (Exhaust Only) Bushing, Guide (Intake, Brass) Wire, Alternator Plate, Cover Plug and Seal, Solenoid Fan, Flywheel Retainer, Fan Label Kit Retainer, Brush  Gasket Set (495868)  Carburetor Kit (491539)
		and Pump	Carburetor Kit (491539), Repair Kit (393397)

\*\*\*\* Included in Gasket Set (495868), and Carburetor Kit (491539)

# SERVICE NOTES

# **SERVICE NOTES**

# **SERVICE NOTES**



Operate your Tractor up and down the face of slopes (not greater than 15°), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

# SEARS

# OWNER'S MANUAL

MODEL NO. 917.259172

#### IF YOU NEED REPAIR SERVICE OR PARTS:

FOR REPAIR SERVICE, CALL THIS TOLL FREE NUMBER:

1-800-4-REPAIR (1-800-473-7247)

FOR REPLACEMENT PARTS INFORMATION AND ORDERING, CALL THIS TOLL FREE NUMBER:

1-800-FON-PART (1-800-366-7278)

FOR CONSUMER ASSISTANCE HOT LINE, CALL THIS TOLL FREE NUMBER:

1-800-659-5917

# CRAFTSMAN®

## 19.5 HP ELECTRIC START 42" MOWER HYDROSTATIC LAWN TRACTOR

Each tractor has its own model number. Each engine has its own model number.

The model number for your tractor will be found on the model plate located under the seat.

The model number for your engine will be found on the blower housing of the engine.

All parts listed herein may be ordered from any Sears, Roebuck and Co. Service Center/Department and most Retail Stores.

# WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- PRODUCT TRACTOR
- MODEL NUMBER 917.259172
- ENGINE MODEL NO. 42E707-2631-E1
- PART NUMBER
- PART DESCRIPTION

Your Sears merchandise has added value when you consider Sears has service units nationwide staffed with Sears trained technicians... professional technicians specifically trained to insure that we meet our pledge to you, we service what we sell.

164030 12.4.97 RD

Printed in U.S.A.